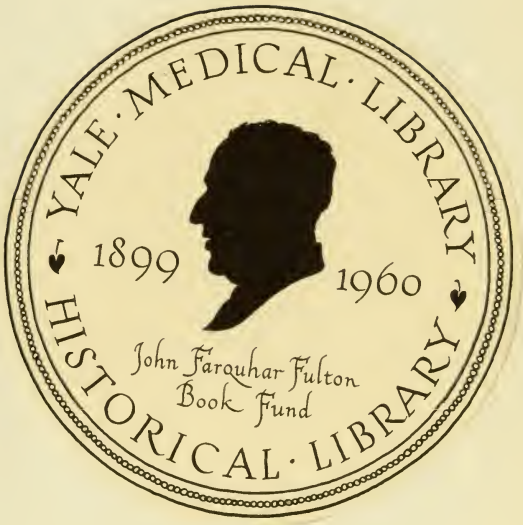
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T. J. G.

Woodcote Lodge, Epsom,
near London,
April 1845.

The Author is in London professionally the first and third Tuesdays in the month, at the Golden Cross Hotel, and notes may be left for him at 17, *Strand, London; but letters from the country had better be directed to Epsom.*

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OF THE

DISEASES

PECULIAR TO FEMALES.

PART I.

OF THE DISEASES TO WHICH ALL FEMALES ARE LIABLE.

THERE are three things which may be said to render females very prone to derangement of health, and which modify their disorders, namely,—1. *The greater sensibility and irritability of their frame.* 2. *The changes continually sustained by the uterus at and after puberty, and the peculiar function of re-production which it is destined to perform.* 3. *The greater development of their capillary circulation.*

Their well known excess of sensibility and irritability renders them peculiarly liable to many distressing affections, in which the nervous system is eminently and greatly involved; the morbid changes, whether functional or organic, induced in the womb and vagina, establish a distinct class of diseases, peculiar to females, and of great importance; while the circulation, being evidently more capillary* in women than in men, and their blood more lymphatic, especially in youth, shews to us the reason why they are peculiarly disposed to disorders in which serous or dropsical swellings, and bloody discharges, form a prominent part of the symptoms.

We shall spend a few moments on the subject of sympathy, and then directly proceed to notice the disorder first in alphabetical order—*Abscess.*

* The capillaries are the smaller vessels of the circulating system, that is, of the arteries and veins.

The subject of Sympathy is an important one in medical science, and by attention to it we are enabled to explain many symptoms in the diseases of women, without which we should be at a loss for an explanation. Numerous sympathies exist in a condition of health: as the sympathy between the skin and mucous membrane of the digestive organs, between the womb and breast, and the womb and stomach, &c.

There are also *morbid* or *diseased sympathies*, which arise in consequence of one part having undergone some alteration in structure or action, whereby sympathy is excited in another.

Instances of morbid sympathy are continually presented to the eye of the medical practitioner, and a severe case of intestinal disorder now under my directions, brings forcibly to my recollection a very common example; namely, irritation in the mouth or lips, or in the rectum, from disorder in the stomach or intestines. The stomach and bowels are organs so highly organized, and so important, that they speedily excite a sympathetic irritation in distant parts when under disorder themselves; and it is worthy of particular remark, that this irritation generally corresponds in severity with the internal disorder which gives rise to it; thus, in the mild cases of stomachic or intestinal disorder, a slight itchiness, redness, or pain, will be produced in the lips, gums, or other parts of the mouth, or in the rectum, while the severer cases of the former affection will induce considerable dryness, itchiness, inflammation, or perhaps ulceration in the latter parts. Of course, the sympathetic irritation excited by disorder or disease of the digestive organs, is not confined to the mouth and rectum, nor indeed to any part or parts, for there is not a single part, even from the crown of the head to the sole of the foot, which has not been seen affected, as a consequence of disorder of the important organs of digestion. In the severest instances, the sympathetic action set up may lead to deep or extensive ulceration, peculiar and almost intolerable irritation, inflammation or pain.

It will be expected, even by unprofessional persons, that *morbid* or *diseased* sympathy exists between parts affected by the sympathies of health; but it is also met with in parts between which, in health, there is no evidence of any sympathy. For example: a pain in the shoulder attends a diseased or disordered state of the liver; but no one, whilst the liver is

in a healthy state, and performing its natural functions, would be led to think that any such sympathy existed between these parts.

There are what professional men call *single*, *compound*, and *reciprocal* sympathies. Of the *single* sympathy, that between the liver and shoulder is an example; that between the disordered stomach and breasts is another example. In some cases, when the stomach is disordered, the breasts become softer and more flaccid, and the gland itself seems altogether gone; and this too when the vigour of the system generally is not much diminished, nor the size of the other parts at all shrunk: the return of the breast to its former firmness and size, is the strongest mark of the returning health of the stomach. An example of the *compound* sympathy we have in the case of a diseased womb producing sickness of stomach, and this sickness of stomach pain in the head. Here the sympathy is not direct between the womb and the head, but the head is affected through the medium of the stomach; for a similar disease of the womb not being attended by any complaint of the stomach, the head does not suffer. The *reciprocal* sympathy is when the parts mutually sympathize with each other. In certain affections of the brain, there is sickness of the stomach; and in a disordered state of the stomach, pain or confusion is felt in the head.

The influence of the womb upon the stomach is very remarkable; thus, in cancer of the former organ, the latter is always, more or less, affected with vomiting. So in suppression of the menstrual discharge, the stomach is much disordered. The mind also sympathizes with the womb, in some cases through the medium of the stomach, constituting one of the *compound* sympathies; in other instances in a more direct manner, as in *furor uterinus*, puerperal convulsions, and in those cases of madness which succeed parturition, when there is little bodily disorder. It is supposed that the influence of the womb on the brain may account for the greater number of instances of madness found in females than in males, it being computed that the proportion is, in this country, as five of the former to four of the latter.

OF ABSCESS.

I refer here, of course, only to abscesses* formed in the female organs, and these are seldom or never original diseases, but are constantly the effect or termination of inflammatory action, or of some excessive irritation in the part in which the abscess is seated.

The healthy abscess is sometimes met with in the external *labia*, or other of the female organs, and in the beginning appears as a hard moveable swelling, attended with heat, pain, swelling, throbbing, and perhaps more or less of general fever. From the looseness of the texture of the parts, the course of the disease is generally rapid; the pain and inflammation often, at first, very acute, the part swelling speedily. Now and then, however, the disease comes on more gradually, and the part continues long hard.

The *treatment* proper during the existence of pain and inflammation, prior to the bursting of the abscess, and especially in the commencement, while any probability remains of checking the inflammatory action, and thus preventing the formation of abscess is, to open the bowels well, by means of the draught No. 6, and to keep them open; to confine the patient to bed, and locally to relieve the pain and inflammation by means of warm fomentations and poultices. The poppy-head fomentation is useful, and also a bread poultice made with a strong decoction of poppies. I do not approve of the use of opium to relieve the pain, in the generality of cases, but should any internal medicine be required for this purpose, I would advise four grains of Dover's powder and one grain of blue pill, made into a pill with extract of hop or henbane, to be taken, especially at bed time; and if this does not relieve the pain, it may be repeated in three or four hours. In cases attended with excruciating pain, a third of a grain of the *muriate of morphia*, made into a pill with extract of henbane, may often be taken with great advantage.

These parts are of course, like others, sometimes attacked

* An abscess is a tumour containing a collection of puruleut matter, and may be either of an *acute* or *chronic* character, that is, coming forward speedily, and filled with healthy matter, or proceeding slowly, and containing unhealthy matter, sometimes small in quantity.

with such chronic inflammation as terminates in indolent, unhealthy abscesses, harassing the patient through a period of many weeks or months. In such instances, the state of the general system must be carefully attended to: we must endeavour to improve it by all possible means, the diet, exercises, and entire regimen of the patient being well regulated; and sarsaparilla, bark, or other alteratives and tonics must be given internally.

A natural feeling of delicacy generally prevents females from making their complaints known, till the inflammation is far advanced, which is one chief reason why they so commonly terminate in abscess; but if the complaint is detected or disclosed early, the application of half a dozen leeches to the seat of pain and swelling is a desirable practice, and will, used in conjunction with the means previously noticed, sometimes reduce the inflammation and prevent the formation of matter.

Many practitioners recommend cold applications to the parts, but I prefer those that are warm.

The diet of the patient should consist of slops during the height of the inflammatory symptoms; but afterwards, a little animal food should be taken once a day.

When the abscess bursts, the fomentations and poultices must be continued, especially the latter, until the discharge of matter abates, and the sore left appears disposed to heal. Then it may be dressed with the *ceratum plumbi composition*, or the *ceratum calaminæ*, spread on lint or linen rag, night and morning, until it heals; and the pill No. 22 may be advantageously taken every night—the bowels being, at the same time, relieved once a day.

I must not omit to notice here, that very young subjects, girls under eight years of age, are sometimes attacked with most severe inflammation and ulceration of the female organs, attended with a quick irritable pulse; slimy, offensive stools; excessive pain on motion; the inflammation being of a dark tint, and the face of a peculiar pallid hue. The ulceration is deep, foul, and spreading; and death has taken place in several instances.

This malady is, probably, seldom found but in populous places, and among the ill-fed children of the poor. There is a very good account of it by Mr. Kinder Wood, of Manchester,

in the seventh volume of the *Medico-Chirurgical Transactions*, and I believe it to be owing chiefly to great intestinal irritation and disorder, in an enfeebled constitution, as almost all such cases are.

The *treatment* is the same as above described, so far as the use of poultices, fomentations, and mild aperients are concerned; but here we are called to afford the patient all the assistance that can be derived from a mild nutritious diet, pure air, and gentle mercurial alteratives. In such cases, I would, from the beginning, give a Plummer's pill at night, or one of the pills No. 22, night and morning, with a view to improve the internal secretions, and also commence with a little quinine, thrice a day, as soon as possible. A yeast poultice will be found one of the best applications to the part; and when the patient is recovering, if the ulcerations appear slow to heal, they should be dressed with the ointment of the white oxyde of lead.

OF CANCER IN THE BREAST.

There is too much reason to conclude, from what may be seen in practice, that the nature of cancer is little understood. Professional men generally pay little attention to it, turning from it to the study of those more common and hopeful complaints, in the investigation of which there are fewer and less considerable difficulties to overcome, and the treatment of which is attended with greater credit and satisfaction.*

Cancer is a disease which attacks the excretory glands, or skin; which has the power of contaminating the neighbouring parts, both by direct communication, and through the medium of the absorbents, and which, for the most part, commences in the form of a hard tumour, or indurated pimple.

It appears that the external *conglomerate* or *excretory* glands, and the skin, are almost the only two structures liable to be affected *primarily* by cancerous disease; but every part or structure of the body may be invaded by it *secondarily*, that is, by the power of contamination resident in, and spreading from,

* It is singular, that while the medical press of Great Britain teems with lengthy treatises on almost all other diseases, scarcely any work on Cancer of value, excepting Sir Astley Cooper's late work, according to my knowledge, has appeared in this country for the last forty years.

the original seat of the malady. Nevertheless, this power possessed by cancer, of communicating the same disease to the adjacent parts, differs greatly in strength and activity in different instances; and I believe that it may, in some cases, remain dormant for a considerable time, and even be unattended with any troublesome or serious consequences, so long as every source of local and constitutional irritation is avoided, and the treatment pursued is correct and suitable. In certain instances, the dormant state of this power may continue for the whole term of life, under the conditions just stated; but there is no case in which it may not be aroused, by the operation of deleterious agents, or the use of injudicious means, to an activity attended with extreme suffering, and necessarily destructive of life.

It is this power of contaminating the neighbouring parts which chiefly distinguishes cancer from those diseases which resemble it, scarcely one of which possesses this deprecated power, except *fungus hæmatodes;* a fact that is not sufficiently attended to in medical investigation and practice. How soon it acquires this power is uncertain, but there is every reason to believe that cases vary in this respect, as well as in other points. It should also be observed, that tumours not originally cancerous, and therefore not then possessing this power of contamination, may afterwards become so. This opinion seems to have been at one time generally doubted, but is now, I conceive, commonly received as correct among the best informed of the profession; and if it be true, it proves that suspicious tumours in the excretory glands or skin, of a very unyielding nature, may exist for a long time, and be free from any power of communicating the same diseased condition to parts in their vicinity.

Fungus hæmatodes, indeed, possesses the contaminating influence now referred to in a certain degree, but this influence extends here mostly by direct communication, through every kind of structure near the original swelling, and has far less power over the absorbent system; while cancer extends as much by the latter mode as by the former, and often in a more striking manner. Besides, fungus hæmatodes occurs in every kind of structure primarily, attacks chiefly young persons, and is otherwise clearly distinguished from cancerous affection.

The *symptoms* of cancer in the female breast are, in the be-

ginning, a small, hard, and moveable tumour, possessing an excessive hardness, perfectly indolent, free from pain, and generally circumscribed; after a time, a sense of uneasiness and itching is occasionally felt in the tumour, succeeded by pricking, shooting, acute darting, and hot lancinating pains. The surface of the swelling now becomes irregular, wrinkled, or puckered, and feels knotty; sometimes the nipple is drawn in, and, at length, almost disappears; the surrounding veins appearing large and tortuous. The glands in the arm-pit, or above the collar-bone, now begin to enlarge, but are without pain. In this state the disease is usually called *scirrhus*, and when ulceration takes place it is called *cancer*.

Previous to the formation of an ulcer, the skin becomes of a dull leaden or livid colour, and when it gives way, a thin ichorous unhealthy matter is discharged; the sore soon enlarges, and its edges become hard, ragged, and either turned inwards or upwards, and backwards; and its whole surface is unequal, there being in some parts deep excavations, while in others there are considerable risings. In many cases, there is now an attempt to form granulations, or an approach towards a healing appearance, on some parts of the surface, but the attempt too often proves deceitful and abortive, spongy fungous flesh soon following, which may disappear and return again, either on the same spots or on different parts. From these fungous risings a good deal of blood is frequently lost, which, with the increase of pain and irritation, undermine the patient's strength, render the pulse permanently quick, and lead on to the formation of hectic fever.

Many other symptoms attend on this malady in its progress, especially rheumatic pains in different parts of the body; cough; swelling of the arm and hand on the affected side, which has appeared to me to be uniformly much lessened when a free discharge of thick matter is procured from the ulcerated surface;—sometimes small hard tumours, or nodules, form at a small distance around the edges of the ulceration.

Such are the most prominent of the regular symptoms of cancer in the female breast, very briefly stated: But there is a considerable diversity in the appearances in different instances. Sometimes the swelling and other symptoms differ in appearance so widely from what we ordinarily meet with, that

some persons are thereby led to question or deny the cancerous nature of the case in which such irregularities take place. It, however, appears to me reasonable, and consistent with observation and experience, to mantain, that cancer, like every other complaint, is frequently modified by age, previous disorders, peculiarity of constitution, and by incidental circumstances of an injurious description. Under such modifications, the more common characters of the disease are often lost, although its nature is still evident, and the treatment required is pretty nearly the same in the one case as in the other.

For example, the disease not unfrequently varies in the primary feel, and subsequent appearance and progress of the tumour, and in the absence, or rather marked irregularity, of particular symptoms. There is, what is vulgarly called, the stony cancer, on account of its impenetrable hardness, and size;—another kind, which, from its comparative indolence, may be named the indolent cancer;—and a third, from its softness and compressibility, we properly call the soft cancer.

The stony cancer is generally the most unfavorable variety of the complaint, being that which exceeds in the severity of its painful symptoms, and which runs its course with the greatest rapidity; the swelling is commonly larger than usual, and attached more or less firmly to the parts beneath. The indolent form may be very slow in the formation of sore, and when it is formed, the more malignant and alarming symptoms are absent. The soft compressible cancerous swelling is very liable to deceive the inexperienced practitioner, particularly in the beginning. The tumour instead of being hard is soft, and has a pulpy or elastic feel, the pain being less severe than in ordinary cases, and the whole appearance of the case little calculated to excite alarm. The progress of the disease varies in different examples, but I believe ulceration is generally not long in appearing, and frequent bleedings occur at a very early period after this change.

One of the most remarkable of the irregularities to be noticed is the absence of pain until a very advanced period of the ulcerative stage. I have thought that persons of scrophulous habit, who are attacked with cancer, suffer much less from pain than most others. In a few cases also we meet with little or no smell in the discharge—a symptom which is considered in some degree characteristic of the disease.

The principal *causes* of this disease are, long continued derangement of the functions of the digestive organs; anxiety of mind; blows, and the peculiar change in the constitution of females at the final cessation of the monthly evacuation. Other causes of a predisposing or remote character may also be mentioned, the chief of which are, advancing and advanced age; cold, variable climate; sedentary habits, and celibacy.

I cannot here dwell on these causes, but would remark, that a conjunction of disorder in the functions of digestion, with sedentary habits, and celibacy, present to us undoubtedly a state most influential in the production of this malady, and every female, therefore, should exert herself to avoid this conjunction. Cancer is often supposed to originate in a blow; but this notion is true to a certain extent only, because such injury cannot justly be considered as *alone* equal to the production of a *specific* induration. Blows, and other mechanical injuries, may produce common swelling and inflammation in any part of the body; but in order to the occurrence of a tumour of a distinct and specific character, as that of cancer is, there must undoubtedly be also a disposition in the part affected to this peculiar form of disease, at the time the injury is inflicted.

It is worthy of particular observation, that cancer is not (in any part of the body) a disease of *early* life. It is mostly met with between the ages of forty and fifty; it does occasionally occur about the age of five and thirty, but is extremely rare before thirty. Swellings and ulcerations of a very painful and distressing description sometimes occur in both sexes, before the period now specified, but these cases are almost always of a different nature from cancer; although severe and obstinate, they are in reality more tractable than this complaint, and have not the power of contaminating the adjacent parts. Whenever any suspicious tumour or ulceration occurs before the age of thirty, more especially if before that of twenty-five, this circumstance may invariably be considered as presumptive proof that it is not of that peculiar description called cancerous. I was once called to visit a young female under twenty-five, said to have cancer in the breast: I found her with a large tumour in one of the breasts, which was ulcerated on its surface, the ulceration having very thick and prominent edges, but being by no means unhealthy in appearance. The ulceration had been occasioned almost entirely by improper applications, and she

was greatly agitated under the fear that her disease was cancer, and that its termination would be fatal. The youth and florid, comely appearance of this patient, in addition to the aspect of the disease, enabled me at once to assure her it was not cancer, nor likely to be so; on the adoption of a better plan her state improved, and I have reason to believe she ultimately got quite well.

The *discrimination* of cancer from other diseases which resemble it in some of its symptoms is important, since they are often confounded with it. The chief of the tumours found in the breasts of females, and liable to be confounded with cancer, are—1. The *Encysted* tumour; 2. The *Benign Chronic* tumour; 3. The *Irritable* tumour; 4. The *Fatty* tumour; 5. The *Fungus Hæmatodes*. 1. The *Encysted* or *Hydatid* tumour commences as a hard tumour, being at first of the size of a pea, of a solid feel, and without pain; pain soon occurs just prior to the occurrence of the monthly discharge, and the swelling having increased in size, one part is felt to be solid, and another fluid. After the swelling has attained a considerable size, a slight inflammation occurs at one part, the skin ulcerates, and a thin glairy fluid is discharged; partial suppuration follows this change, and sometimes adhesion, so that the cyst becomes obliterated; but another cyst then opens, and goes through the same process, and so on till they have all ulcerated. It occurs chiefly in women under twenty-five.

2. The *Benign Chronic* tumour is more blended with the surrounding parts than the cancer, and is not so hard and compact. It commonly occurs in women under twenty-six. 3. The *Irritable* tumour is *exquisitely* tender to the touch, yet there is no redness of the skin, or any other mark of inflammation. The pain is often very great, even from the commencement, just before the time of menstruation, and will frequently, at that period, extend to the arm and hand on the side affected. It usually occurs in full-bosomed young women, of a florid complexion, sanguine temperament, who are unmarried, and under twenty-five years of age. On examining it with the hand, it is found to soften away gradually into the surrounding parts of the breast, so that its limits cannot be accurately traced. 4. The *adipose* or *fatty* sarcomatous tumour is, for the most part, easily distinguished from a scirrhus, by its

soft, uneven, fatty feel, and by being quite free from pain, although it may have grown to a considerable size. This kind often attains an enormous magnitude: one weighing as much as fourteen pounds has been removed from the female breast. 5. By *fungus hæmatodes* is meant a spongy, fungous, bleeding tumour. It is a direful disease, having a spongy, elastic feel, which attacks chiefly young persons, is attended with little or no pain, but is very rapid in its progress—symptoms that sufficiently distinguish it from cancer.

There is also a scrophulous swelling of the breasts occurring in females of a scrophulous habit, and commonly before the age at which cancer usually appears.

Notwithstanding what has now been said of the *diagnosis* or distinguishing signs of cancerous disease in various parts, it will, undoubtedly, often require the exercise of not a little consideration and judgment, in order to discriminate tumours and ulcerations which are not cancerous from those that are. It may be gathered from what has here been previously remarked, that the fact of cancer very rarely occurring *primarily* in any other structure than the excretory glands an d skin, and likewise its being usually confined to advancing and advanced life, lends us material assistance in ascertaining the nature of a doubtful case. The lymphatic glands of the tongue, jaw, neck, arm-pit, groin, and other parts, are not unfrequently affected with hard unsightly swellings, which, in an unhealthy condition of the general habit, may ulcerate and put on a malignant and suspicious appearance; but if such swellings are not preceded by scirrhus of the neighbouring skin, or of an adjacent excretory gland, we may depend they are not affected by cancerous disease.*

* I was consulted some years since on the case of an elderly lady, living at a considerable distance, who was said to have a solitary swelling, of the size of a hen's egg, under the arm, not in the arm-pit, but near it, and close to the breast. This tumour gave the patient great uneasiness, and was called cancer by the attending apothecary. Indeed, so positive was he of its being cancerous, that he repeatedly urged the patient to submit to an operation, and that after a surgeon in London, of some celebrity, had expressed his doubts of its being of a malignant character. The lady refused to comply with the apothecary's advice; and the case proved to be one of an enlarged lymphatic gland, apparently arising from an injury received on the hand, in conjunction with a debilitated state of the constitution.

Treatment. This is undoubtedly one of the most intractable of human maladies, and it would afford me uncommon satisfaction if I could lead the patient to a means of cure. The cure of cancer, however, is a very rare thing. It is unquestionable that some professional men of ability and discernment have believed this disease sometimes to be curable, and others, who have seemed to doubt its curability in the present state of medical knowledge, have, notwithstanding, indulged the hope and anticipation that the means of cure would ultimately be discovered. The former opinion has been embraced by Dr. Munro, Dr. Denman, Mr. Justamond, and Mr. Carmichael. The late Mr. North, who paid considerable attention to the subject, says, *(Observ. on Cancer, p.* 99,*)* in speaking of the good effects resulting from a certain application which had been used to an open cancer, "it was found capable of reducing an extensive cancerous ulcer to the mild state of a small fresh wound, therefore might we not conceive that it would heal it also." And notwithstanding his great partiality to excision in such instances, he adds, a little further on, "the opinion is too general, that a surgeon has no remedy but his *knife*."

Cancer is a complaint which mostly occurs at a period of life, when the energies of the body begin to fail, or in constitutions enfeebled by previous anxiety, excessive fatigue, or internal disorders; and, therefore, persons afflicted with this disease invariably require a treatment, both general and local, which is calculated to support and increase the powers of the system. This is, in my opinion, a chief principle in the treatment of cancer; and agreeably thereto, my advice is for the patient to make use of such a diet and regimen as are capable of improving the state of the general health and strength, partaking moderately, at regular intervals of four hours, of such animal and vegetable food as is most easy of digestion, and agrees best with the individual.

We have, also, to improve the secretions, equalize the circulation, and regulate the bowels. Numerous have been the remedies recommended, at different times, for this disease: but I shall confine my attention to the three following, viz. *Iron*, *Iodine* and *Hemlock*.

Iron or *steel* is a celebrated remedy, and enjoyed the confidence of Dr. Denman, and Mr. Carmichael; and I have wit-

nessed great benefit from its use. In my *Modern Domestic Medicine*, I have detailed the plan which appears to me the best, and it is as follows; in the *scirrhous* or unbroken state, to keep constantly applied to the tumour, by means of thin linen rags, a lotion, made by mixing together one table-spoonful of the *acetate of iron* and seven or eight table-spoonsful of water; to use gentle friction over the tumour night and morning, for fifteen minutes, with camphorated oil; and to take the carbonate of iron pills, No. 23, thrice a day. Change of air is likewise useful. Instead of the pills No. 23, the patient may sometimes take the ammoniated tincture of iron—this agrees with some patients better than the pills. The pill No. 22, or Plummer's pill, taken every other night, often assists materially in relieving the patient.

In the *ulcerated* state the lotion will not be wanting, but as a dressing to the ulcer we recommend the *oxyphosphate of iron*, simply brought to the consistence of thick oil paint, by means of a little water, and laid over the sore with a camel hair pencil night and morning. This improves the discharge, corrects the fetor, and relieves the pain. It is a particular remedy, with difficulty obtained genuine, and the patient must employ the best chemist. In other respects, the treatment is the same as above directed for unbroken cancer.

In all cases, there is nothing equal to the *muriate of morphia*, in instantly relieving pain, if it is not relieved by the other means. A quarter or one third of a grain may be given, made into a pill with extract of hemlock.

The different preparations of *iodine* have certainly great powers in this malady. There are some cases recorded by Dr. Wagner, in the *Révue Medicale, Juin*, 1823, which are in favor of it; indeed, many practitioners have seen so much advantage from its employment, in various tumours and ulcerations, that it is manifestly a remedy of great promise. Dr. Copland says, *Dictionary of Practical Medicine*, p. 289, "I have been consulted in two cases, occurring in females between thirty and forty, for what was considered, by the attending practitioners, *scirrhus of the breast*, owing to the lancinating and remitting pains, and the diseased state of the nipple and axilliary glands. They were both put upon a course of iodine; and conium, with the subcarbonate of potash, was given internally; a light nutri-

tious diet, and strict attention to the state of the uterine functions, were also observed. Perfect recovery has taken place in both: but it appears doubtful whether or not they were genuine cases of scirrhus, notwithstanding the signs now alluded to were present."

One of the cases related by Mr. Hill, *(Edinb. Medical Journal, No.* 87, *p.* 283,*)* was in the ulcerated state. He dressed it with an ointment, consisting of one drachm of the hydriodate of potash and one ounce of lard; and gave the patient internally, thirty drops at a time of a mixture of thirty-six grains of the hydriodate, and an ounce of distilled water. A vast amendment of the disease took place under this treatment, so that a cure was expected, at least by the patient, but their expectations were not realized.

If the case is one of unbroken tumour, that should have the ointment No. 29, or the ointment of iodide of lead referred to under *Diseases of the Ovary*, rubbed into it twice a day. At the same time, the patient may take the drops No. 18 twice a day, and attend carefully to the bowels, to the diet and exercise.

Should this disease be in an ulcerated state, the treatment is the same as in the last case, only the ulcer must be dressed with an ointment, composed of one drachm of the hydriodate of potash and one ounce of hog's lard, instead of the ointment there referred to.

The treatment of cancer by the use of *hemlock* has found many supporters, and when properly used, and combined with mild tonics and alteratives, it has had undoubtedly, in particular instances, great effect. The extract of hemlock, *prepared in vacuo*, is the best preparation, and it may be taken in doses of three grains, thrice a day, made into pills, the dose being gradually augmented to five or eight grains, thrice daily. At the same time, hemlock poultices, made of the fresh leaves, should be applied to the swelling, and frequently repeated. In some cases it is a good plan to give the hemlock morning and night, and, in the intervals, a mild tonic draught, once or twice a day. The following is a form recommended by Sir A. Cooper:

> Take of compound infusion of gentian, an ounce and a half; tincture of calumba, half a drachm; carbonate of ammonia, four or five grains; carbonate of soda, a scruple. Mix them.

The following form is more agreeable, and equally efficacious:

Take of compound infusion of gentian, an ounce; carbonate of ammonia, four grains; tincture of calumba, one drachm; syrup of orange peel, one drachm. Mix them together.

or the CORDIAL DRAUGHT, No. 5A, may be taken, which is both less unpleasant, and more efficacious, than either.

The combination of iron with iodine, as in the prescription No. 27, may be tried in some cases with advantage.

Hemlock is undoubtedly a valuable medicine in this complaint. It has appeared to me to have much more power over the cancerous diseases of persons advanced in years than of those who are not aged. Four or five grains of the extract, *prepared in vacuo*, may be made into a pill, with a little powder of hemlock, and taken three or four times a day. After a short time the dose may be augmented to two pills thrice daily. Either *Moxon's*, or the common, compound essence of sarsaparilla may be advantageously taken with it, in the dose of a tea-spoonful, twice or thrice a day, in a wine-glassful of water.

The hemlock is useful in removing pain, but the most powerful and the best medicine for this purpose, is the *muriate of morphia*, which may be taken in pills, a dose of one third of a grain being taken once, twice, or thrice, in the twenty-four hours, according to the severity of the pain.

It is a very usual practice to apply leeches to the swelling, but I have never known any permanent advantage arise from it, and question whether it be not generally hurtful. I am aware the discharge of blood sometimes affords relief in the indolent state, but the benefit is transitory, and when the application of the leeches has been discontinued, it has appeared after a short time to have really tended to increase the rapidity of the subsequent progress of the disease. On this account, I cannot but dissuade from it.

The diet, in all cases of cancer, as before remarked, should be mild and nourishing. A little animal food at dinner is advisable, and in some cases it may be desirable to take it also at breakfast. Either home-brewed malt liquor, Dublin porter, or sherry wine is likewise proper in most instances. Some professional men have advised a low diet in this malady, and it is asserted that thus the progress of the disease has been greatly retarded; but my own experience is decidedly averse to it. Sir Astley Cooper protests strongly against it.

I believe an operation for the removal of ulcerated cancer in the breast, is now never performed by men of judgment, and very rarely recommended by them in *scirrhus*, or unbroken cancer, except in the earliest stage, and before the occurrence of lancinating pain. I am very much disposed to the opinion, that after the commencement of sharp pain, the use of the knife serves only to aggravate the patient's sufferings, and accelerate her death. Persons at a distance from London will do well to note this, as it is no uncommon thing for a quite different advice to be given in the country, to the great injury and distress of the sufferer. Mr. Samuel Cooper, *(Surgical Dictionary, p.* 292, *edit. sixth,)* remarks, "How often is the operation determined upon because the nipple is retracted, and true cancer thereby announced! Yet says Sir Charles Bell, with reference to the cause of this change, as previously explained, 'it is quite clear, that if the nipple be fully retracted, and if this has been evident for any considerable time, the operation has been too long deferred.'"—*Medico-Chirurg. Trans. vol.* xii. *p.* 223.

It is worthy of particular notice, that no operation should ever be performed in this disease, unless the patient has undergone a course of alterative medicines, such as the *alterative pills* No. 91 in the MODERN DOMESTIC MEDICINE, Plummer's pill, or the pill No. 22 in this volume, every night, with the sarsaparilla during the day.

OF CANCER OF THE UTERUS OR WOMB.

It is not necessary to dwell particularly on scirrhus of the womb, since what is said in regard to the treatment of cancerous ulceration of that organ is mainly applicable to the disease in its incipient state.

The *cancerous ulcer of the womb* attacks only, *in the first instance*, the *cervix* or neck of that organ: at least, this is very commonly the case. This part is thickened, has a resisting feel resembling that of gristle, or a distinct tumour, of a small size, may be felt arising from some part of the neck of the womb; and in all cases, pressure produces pain of a *lancinating* kind. The mouth of the womb is felt to be larger than natural, and when the finger is passed into it, it feels as if sur-

rounded by a firm ring. When ulceration takes place, the ulcer has very hard and ragged margins.

This is a disease of advancing and advanced life. It does not attack young women, how many children soever they may have borne. The symptoms are not very violent at first, but become more distressing afterwards. A mucous discharge from the vagina (the whites) is one of the earliest symptoms; it is sometimes tinged with blood, and occasionally such large quantities come away as produce great weakness, and then the tumour remains almost stationary, increasing little in size, and producing little or no uneasiness. Many cases occur of women with a diseased womb, who, after having been attacked by large bloody discharges, so as to cause them to faint and bring on symptoms of dropsy, continue free from every symptom of cancer for several months.* In cancer of the womb, if menstruation has not ceased, it becomes for the most part irregular, and is more profuse than it ought to be. There are present, an aching in the back, dull pain about the top of the thighs; darting pains from behind forwards, or "up the passage;" pain in making water; itching of the external parts, and sometimes erysipelas. Heartburn, flatulence, and indigestion are common, and nettle-rash is often troublesome, owing to the presence of acid in the stomach and intestinal canal. The general health soon suffers much, the countenance becomes sallow, the pulse quick, the strength declines, and the body wastes.

When ulceration is established, the discharge is purulent, very fœtid, sometimes streaked with blood or mixed with small clots, or hæmorrhage may take place. Repeated attacks of retention of urine come on, requiring the use of the catheter; and afterwards incontinence of urine may be troublesome and distressing, followed by other still more distressing symptoms. Sometimes vomiting takes place, and there exists a burning heat of the stomach, and insatiable thirst. But, although I

* In some instances where death has taken place early, it has not been from weakness and the dropsical symptoms, but from the symptoms belonging to the original disease. This is the reason why many cases of profuse menstruation ending in dropsy are unmanageable; because they depend on organic disease of the womb, which is never perhaps known, or, if known, baffles the art of medicine.

have not detailed all that might be detailed on this very painful subject, yet I have said enough, and we will therefore now give the best directions we can respecting the treatment.

Is cancer of the womb more common in women who have or have not borne children? The general opinion perhaps is in favor of the latter view; but Madam Boivin observes, that in forty cases which came under her observation, thirty-two existed in females who were mothers. "Some pupils of M. Dubois have also collected cases in the various hospitals of Paris, and of seventeen patients it was observed that sixteen had borne children." *Lancet, vol.* ii. 1833-34, *p.* 246.

Treatment. How gratifying would it be to me to be able to point out a cure for this disease! What a matter of thankfulness to God would it be, if we could even direct to remedies which might be used with a tolerable certainty of delivering the patient from acute pain and excessive irritation! but the Judge of all the earth has determined otherwise, and even this cannot be done in the majority of cases. In the earlier part of my practice, I thought much might be done for this terrible disease, and that a cure was possible, if not in cancer of the womb, yet in cancer of the breast; but a more matured experience convinces me, that no cure is to be expected in either case, and I freely confess, that the cases which I thought to be cures of cancerous breasts were those of some other disease resembling it.

Although we cannot deliver the patient from a liability to extreme pain and irritation, yet it must be observed that very much may be done to relieve her sufferings, and to supply that degree of comfort which would be altogether wanting under bad management. Throughout we ought to proceed on the principle of avoiding such causes as excite the action of the blood vessels generally and locally, and of lessening this action. In this way, the progress of the disease will be somewhat retarded, the discharge improved, and the patient rendered much more comfortable.

In order to diminish the action of the arteries, it is common with some medical men to order eight or ten ounces of blood to be drawn by cupping from the very lowest part of the back, or twenty-four leeches to be applied to the groin and lower part of the belly; and this is directed to be repeated every

month, unless the patient is much exhausted by it, or the malady.* Sir Charles Clarke recommends this abstraction of blood in his valuable *Observations on Female Diseases*, but I am compelled to dissent. According to my observation, the artificial loss of blood is what such patients do not need, indeed cannot bear; in general we gain nothing by it, while in many cases we thereby lose not a little, for we diminish the patient's strength. Besides, hæmorrhage from the uterus is very apt to take place in this disease, tending greatly to the debilitating of the system, and to this we must always advert. In a case that I have very recently attended, the loss of eight ounces of blood by cupping, which was ordered prior to my attendance, reduced the patient more, according to the conviction of the medical adviser, than twice the quantity previously lost by hæmorrhage. The tepid bath at about 93 or 94 degrees, may be used frequently, and sedative injections carefully thrown into the vagina three or four times a day, by means of a female syringe. A strong decoction of carrots forms an excellent injection in this malady, and so does three or four drachms of the extract either of hemlock or henbane, to a pint of tepid water or mucilage of quince seed. Half an ounce of extract of poppy to a pint of mucilage of quince or thin starch, forms another good injection. Three or four ounces of either of these fluids may be thrown up the passage, four or five times in the twenty-four hours. Sometimes it allays pain to throw it into the *rectum*. Ten drops of nitric acid to a pint of distilled water is another good injection in some cases; and a weak solution of chloride of lime is often of great service, especially in correcting the fetor of the discharge.

The management of cancerous sores, especially in the womb,

* It should be remarked, that when ulceration does not extend beyond the womb, the symptoms are regular and uniform; but a new organ may be attacked, and then new symptoms arise, characteristic of inflammation in such organ. This is the real source of many sudden and unexpected changes in the disease. Thus, when the *rectum* is attacked, tenesmus follows, with great heat in that part, and distress in voiding the fæces; if the bladder is attacked, shivering usually comes on, succeeded by heat, great fixed pain, and difficulty and pain in making water. Should the disease penetrate into the cavity of the belly, symptoms of peritonœal inflammation will be present, such as tenderness and distension of the belly, and a small frequent pulse. Such circumstances call for the use of blood-letting, even in an advanced stage of this malady, otherwise the patient will die of inflammation.

demands close attention, since their spreading may be greatly retarded by the employment of proper remedies, especially those which absorb the ichorous fluid secreted by them, or which render it less acrimonious. We have reason to believe, that common sores may be converted into malignant ulcers, by an acrimonious discharge passing over them.

The quantity of the discharge is frequently increased by the warm bath and warm injections, but the comfort which the patient derives from them, will abundantly compensate for any debility thereby induced.

When the discharge is so great as to induce considerable debility and exhaustion, astringent injections must be used, as No. 14, or an injection composed of half a drachm of sulphate of zinc, fifteen ounces of distilled water, and one ounce of tincture of kino.

Should hæmorrhage occur, it is advisable not to restrain it hastily, (particularly if the patient is in great pain at the time,) unless it is profuse, or the patient's strength should have been previously much exhausted; if it is desirable to diminish the hæmorrhage, the astringent injection No. 14 may be used, or half a drachm of sulphate of copper to a pint of decoction of bark.

To mitigate pain and irritation, sedatives and opiates must be employed, according to the wants and exigencies of each case, taking care never to use a sedative of greater power, or in a larger dose, than is necessary to afford the relief sought for; because, the disease being one of some duration, we must learn to husband our resources, and to bring forth our remedies in proper succession, that our patient may derive the utmost benefit we are capable of affording. Henbane and hemlock, in the form of extract, in the dose of three or four grains, are the mildest sedatives, and also very effectual, and the dose may be subsequently increased, as the symptoms call for it. Extract of stramonium, in doses of a grain, is another valuable remedy. A grain of the extract of belladonna inserted into the *rectum* is sometimes very useful in relieving pain, but this medicine should not be given internally. In advanced states of the malady, opium will not unfrequently be required, when we would recommend Battley's solution, the black drop, or the acetate or muriate of morphia. The muriate of morphia, in doses of a

quarter, one third, or half a grain, is a very powerful sedative and anodyne, and may ordinarily be used with great effect.

The stomach is sometimes exceedingly irritable, which compels us to combine the opiate with spices or other cordials, when the opiate may be given with peppermint julep, cinnamon water, or weak brandy and water. A draught, composed of 15 or 20 grains of opiate confection, half a drachm of compound spirit of sulphuric ether, and an ounce or an ounce and a half of peppermint water, is very useful in allaying vomiting, hiccup, and eructations in this disease; and it may be repeated frequently.

With respect to internal medicines employed with a curative view, very little can be said. Steel is in some cases, and in suitable combinations, often useful; it frequently improves the discharge, greatly relieves the pain, and disposes the ulcer to heal, but I am not aware that its effects extend beyond this. The carbonate of iron, combined with aromatics and a little aloes, and adminstered in the form of pills, is probably the best mode of taking it. Iodine also may be useful. The sarsaparilla extract, or powder, or *Moxon's concentrated essence of sarsaparilla*, or both united, will be found valuable in many instances.

The diet of women afflicted with cancer in the womb should, in the first instance, be rather abstemious, especially if the patient be of a full habit; but as considerable debility comes on, it must be a little more generous. Of course the diet ought to be regulated by the circumstances of the case, and, in all instances, we must aim thereby to allay irritation. The clothing should be warm, and the daily exercise in the open air moderate.

I must not close this article without observing, that every case of hardness or pain in the womb is not one of cancer; this must ever be borne in mind, otherwise our patients will sometimes suffer materially. In some cases of unmalignant swelling of the womb, the symptoms of pain, irritation, local tenderness, and those of general ill-health are very severe; but they will commonly yield to skilful management. In this class of uterine enlargements, sarsaparilla, corrosive sublimate, *liquor potassæ*, and iodine are of pre-eminent utility.

A very satisfactory case, of this description, which was treated by Dr. Thetford, is related in the *Dublin Transactions*, *vol.* 5. The symptoms of the patient were, head-ache, slight intolerance of light, and total want of sleep; eyes dull, tongue coated

with a yellowish white fur, and moist; collapsed countenance, pulse 108, and very feeble; abdomen enlarged, and tender on pressure, particularly in the epigastric and hypogastric regions, in the latter of which pain was also felt. She was forty years old, and had borne one child, when about sixteen. Her bowels were obstinately constipated, and active aperients were moderately and repeatedly given, which brought away indurated fæces, very offensive in smell, and causing unusual pain in passing them. An anodyne was administered every night, and after this treatment had been continued for several days, the patient was much relieved; but the bones at the lower and fore part of the belly were very sensitive to the touch, and a tumour was felt in that situation.

"After some hesitation (says Dr. Thetford) she now acknowledged that there was a hard tumour in the vagina, easily felt by herself, and very painful to the touch, which had gradually increased in size, without any discharge from it; and that menstruation had ceased for some months. I prescribed various sedatives, to assuage pain and procure sleep, and directed the aperients to be continued, until the fæcal discharges had become natural. This last object being attained, I commenced an accurate local examination. The mouth of the womb was found enlarged, and firmer than natural; beyond, and connected with which, a large tumour of uncommon hardness opposed resistance. There could not exist a doubt of the tumour being the uterus of great size, and in a state of induration. Ordered alterative doses of the corrosive muriate of mercury, with pills of conium and hyoscyamus, and enjoined a strict attention to the state of the bowels.

"The above course was persevered in for thirty-six days; and although the health was amended, the size and hardness of the uterus remained undiminished. Afterwards, seven drops of the tincture of iodine was ordered to be taken three times a day, in a glass of water, which dose was augmented gradually to ten drops, every other medicine being discontinued, except castor oil occasionally.

"The result was speedily favorable;—her spirits revived; appetite greatly improved; intestinal evacuations in general sufficient, without any aperient; urine passed in greater quantity than formerly, and with diminished pain; ability to take increased exercise; rapidly progressive absorption of the diseased substance of the uterus; periodical returns of the catamenia."

In a very short time after, this patient was quite well; but, although the iodine was evidently the chief remedy in the cure of the patient, the value of the preparatory treatment must not be overlooked.

Dr. Mackintosh, of Edinburgh, has witnessed excellent effects resulting from the use of iodine, in suspicious tumours of the

womb. He says, (*Principles of the Practice of Physic, vol.* ii. *p.* 314, *third edit.*):—

"I cannot resist stating the effects of the above-mentioned treatment in the case of a lady, who, having for some months observed a tumour the size of the bottom of a Florence flask, above the rim of the pelvis, rapidly increasing, both in size and weight, and bearing down in the passages; she mentioned her situation to her friends, who advised medical assistance to be called, which was done accordingly. After a large quantity of iodine had been used, without any effect, I was consulted, and found an enlargement, not only above the brim of the pelvis, but also filling up its cavity, producing constipation and difficulty in passing water, from the pressure upon the rectum and bladder. I gave an unfavourable opinion, but added that there was a possibility of checking the activity of the disease, and the further enlargement of the tumour, at least for some years. There never was a case which better illustrated the advantages of the combined influence of the treatment already mentioned: leeches and counter-irritation were employed, in addition to the external and internal use of iodine; an immediate effect upon the activity of the disease manifested itself; from this time the tumour began to diminish. When I first saw her, she was the size of a woman in the fifth month of pregnancy. In the course of three months, the tumour could not be felt by external examination, and at the termination of seven, the treatment was discontinued, as she ceased to feel any inconvenience, except a slight degree of weight in the passages. I have had an opportunity of seeing this patient several times since, and am assured that she feels nothing of her former disease, and that she menstruates regularly."

OF PROLAPSUS, OR A FALLING DOWN OF THE BLADDER.

The bladder may descend only a little lower than its natural situation, or it may fall so low as to become an external tumour, projecting in sight. It is the posterior part of the bladder which descends, or that which lies behind the entrance of the urinary passage.

The *symptoms* are a sensation of bearing down, a discharge of whites, and a pain referred to the navel, with a sense of tightness there. This pain is almost peculiar to the complaint, and is greatest when the bladder contains the largest quantity of urine; as it parts with its contents the uneasiness diminishes, till at last when it is empty, or nearly so, the symptom goes off altogether.* The sense of bearing down, above noticed,

* The superior ligament of the bladder runs from the fundus of the bladder to the navel, to which it is attached; and perhaps the stretching of this ligament,

is in some women greatest in the horizontal posture. In the night, therefore, the patient is greatly annoyed by this sensation, which is frequently coupled with a perpetual desire to make water. If urine is contained in the bladder, the patient is much more uncomfortable, as the size of the tumour is much increased when the bladder is full; and the reverse. Of course, on examination, a tumour is found in the vagina, and upon tracing this to its origin, it may be felt lying between the *os pubis* before, and the womb behind; and a fluid in it is perceptible. The tumour seldom goes away entirely, because some urine generally remains in the bladder; even immediately after the woman supposes that she has emptied it; it appearing that the muscular fibres of the bladder, which form the pouch or tumour, have not the power of contracting so as to expel the whole of the water.

This complaint is *distinguished* from a falling down of the womb, by an opening, (the mouth of the womb,) being perceptible at the lower part of the latter, which is not found in the *prolapsus* of the bladder. Another distinguishing mark is, that while the stomach is very much affected with various symptoms, as nausea, vomiting, weakness, heartburn, &c. in the prolapsus of the womb, these symptoms are for the most part absent in prolapsus of the bladder.*

The chief *cause* of the prolapsed bladder is a relaxation of the vagina, and therefore it is most commonly met with in women who have borne many children. It appears to be particularly frequent in such women as are troubled with violent coughs.

Treatment. This consists in supporting the bladder by the introduction into the vagina of a hollow globular pessary. Egg-shaped pessaries are, however, more comfortably worn by some women, than those of a globular form. This is found where the diameter of the vagina is but little increased by relaxation.

or the effect produced by the dragging upon the navel itself, may account for this symptom.

* This refers only to the simple displacement of the bladder. Should the bladder become affected by disease, then the stomach is usually much affected, but the complaint is no longer to be considered as a simple case of prolapsus of the bladder.

Both these kinds of instruments should have four holes, (in the egg-shaped, at the broad extremity,) through which two pieces of silk can be passed, by means of which the pessary may be occasionally withdrawn.

The injection No. 12, or 13, should be thrown up with a syringe thrice a day; particular care should be taken to avoid straining, and lifting heavy weights, and the bowels should be kept in rather a laxative state, in order that the motions may be passed without great effort.

OF PROLAPSUS, OR FALLING OF THE WOMB.

The falling of the womb is met with in various degrees, from that case in which the mouth of the womb descends a little lower than its natural situation, to that in which the womb projects through the external parts, dragging with it the vagina, and forming a large tumour externally, equal in size, to a large melon. Of the many casualties to which the uterus is liable, the prolapsus is perhaps the most frequent, and it is also one of the most troublesome.

The *earliest symptoms* are pains in the back,—pain in the groins, with a sense of fulness, and a mucous discharge, which is often mistaken for the *whites*. As the disease proceeds, a dragging pain is felt, and a sense of bearing down and weight, the woman feeling, as she expresses it, as if every thing was dropping through her; and there is a frequent desire to make water. Some women are much afflicted with a severe pain in one of the sides, especially in the left.* The pain in the side, back, and groins, is the greatest when the patient is erect, and subsides in the horizontal posture. The appetite becomes bad; the stomach and bowels lose their tone; sometimes there is spasm, and hiccup; the spirits are depressed, and symptoms of general debility appear. In some instances there exists a pressure, and feeling about the rectum resembling a slight tenesmus, which is extremely troublesome.

In severe cases, the vessels of the womb, partaking of the general debility of the frame, permit blood, as well as the

* As the spleen is known to sympathize largely with the uterus, it is probable the seat of this pain is in that viscus.

monthly discharges, to escape from their terminations, and then the patient may at the same moment labour under two diseases, one being the effect of the other; namely, *profuse menstruation*, and *a falling of the womb;* the former not admitting of relief by the usual means, unless attention be paid to the latter.

In married women, this complaint, when very severe, usually gives rise to pain on certain occasions.

It is a fact, and will be considered by some as a singular one, that when the womb protrudes out of the body, so as to become an external tumour covered by the vagina, the surface of the vagina, (that is, the membrane of the vagina,) no longer secretes any discharge, although it did so before in considerable quantity, whilst the tumour did not protrude externally. This accounts for another fact, that those cases of descent of the womb in which the tumour is not external, are attended with a much greater degree of bodily weakness, than when it is external; in the latter case, all the strength being saved to the woman, which would have been expended if the tumour had remained in the body. When the parts are returned to their natural situation, the mucous membrane of the vagina again immediately resumes its functions.

When the tumour protrudes externally, ulceration generally takes place on its surface, but it readily heals upon the re-placement of the prolapsed parts.

The chief mark of this disease is a tumour, either in the vagina, or hanging out externally; but it must be carefully noticed, that every tumour in these parts is not a prolapsus of the womb. The mark which always characterizes this prolapsus, is the existence of the mouth of the womb at the lower part of the tumour; if this is wanting, the disease is proved to be of a different nature from a falling down of the womb. The patient should always be examined in the erect posture, and after the rectum and bladder have discharged their contents.

The *causes* of the falling down of the womb, are chiefly relaxation of the broad and round ligaments above, and a want of proper tone in the vagina, induced by a long continued erect posture of the body at an early period after delivery or miscarriage. Women subject to violent coughs during the time of their confinement after child-birth, and those who lift or

carry heavy burdens, are especially liable to prolapsus of the womb. This disease is seldom met with except in women who have borne children, which is ascribed to the elongation of the ligaments of the womb, in consequence of that organ having been repeatedly gravid. It is more common in thin than fat women. From what is now said, we may discern the reason, why this malady is so frequent among the lower classes of society, and why women for a certain time after child-birth, should avoid an erect posture, and every kind of exertion.

A woman may become pregnant, notwithstanding an incomplete prolapsus of the womb. It is possible that the displacement may even take place at a more or less advanced period of pregnancy, while, in other still more uncommon instances, the prolapsus has disappeared when the period of labour drew near.

Treatment. We have first to reduce the part, and then to keep it from falling down again. In the inconsiderable or incomplete prolapsus, the reduction is easy, and the patient can almost always effect it herself. More difficulty attends the reduction of the complete prolapsus, that is, where the womb, has descended very low, or even protrudes externally. Here the patient should lie on her back, with the pelvis raised higher than the chest, and the legs and thighs bent. The bladder should be emptied, and likewise the rectum, by means of clysters. The patient being now directed not to strain or in any way to act with her abdominal muscles, the practitioner is to apply his finger and thumb to the lower part of the tumour, where the mouth of the womb is situated, and by a gentle pressure this is to be carried up into the centre of the tumour itself. This done, the same pressure is to be continued, and the parts are to be returned into their proper place in the pelvis.

A *pessary* is then to be introduced into the vagina, and the patient should continue to lie upon an inclined plane, with the hips elevated for several hours.

In those severe cases where the displaced womb is inflamed and considerably swelled, before any attempt is made at reduction, the patient should be kept two or three days in bed, be put on a low diet, take daily the aperient draught No. 5, and drink warm barley water, or linseed tea, while the parts are

fomented with a decoction of mallows or poppy-heads and chamomile flowers. After this, the reduction has been attended with complete success, in cases of long standing and considerable size.*

In cases of some standing, care must be taken to ascertain, whether inflammation has at any time attacked the internal parts of the swelling forming the protruded womb; because in such a case, adhesions are often formed with the neighbouring parts, by coagulating lymph thrown out during the activity of the inflammation, when the force necessary to accomplish the return of the womb may separate the adhesions, or tear the parts with which they are connected; and the life of the patient is greatly endangered. The symptoms of inflammation having attacked the tumour are, acute pain, lasting for some time, thirst, white tongue, small quick pulse, tenderness of the belly, and vomiting, and if these have been present, it will require great judgment to determine whether an attempt should be made to replace the womb within the body. So also when the attempt to return the womb is attended with great pain, all efforts to return the parts should be abandoned.

In the treatment of the prolapsus of the womb, we are called upon *to increase the strength of the weakened parts*, which is to be accomplished by the application of cold, and of astringents. Cold fluids applied to the vaginal passage, or to the neighbouring parts, will produce a contraction of the muscular fibres surrounding it, a corrugation of the internal membrane, and a diminution of the diameter of the canal itself. They will like-

* Now and then it happens that from the long-altered state of the parts, and an established purulent discharge, the reduction produces worse symptoms than the continuance of the prolapsus. This is of rare occurrence, but it is necessary to bear it in mind, especially where a purulent discharge has been established from the surface of the tumour. Dr. Locock adverts to a case in point. He says, (*Cyclopæd. of Pract. Med. No.* xiv. *p.* 36,) "We were consulted by a soldier's widow several years ago, for a complete prolapsus of the uterus, produced by violent exertion during the retreat from Corunna, within a few days of her confinement, and which had never been reduced. There was a profuse semi-purulent discharge from the inverted vagina. After some difficulty, the uterus was replaced within the pelvis, and a pessary worn, consisting of sponge soaked in an astringent lotion. The discharge from the vagina ceased, and in twenty-four hours a quantity of muco-purulent fluid began to be copiously expectorated from the bronchial membrane, which amounted after a few days to nearly three pints in the twenty-four hours; and, in less than a fortnight from the replacement of the uterus, the patient sank from exhaustion."

wise produce contraction of the blood vessels in its neighbourhood, and the secretion from it will thereby be diminished. Cold spring water ought, therefore, to be applied to the belly and back, by means of a sponge, three or four times a day, and ice or salt may be advantageously dissolved in it. Cold water may also be thrown into the vagina by means of a syringe, or a piece of ice may be introduced, In very slight cases of the disease, it will sometimes be removed by attention to these rules, if assisted by the horizontal position.*

Cold water, in which astringent substances are dissolved, is sometimes still more beneficial than when used alone; and the most powerful and appropriate astringents here are alum, sulphate of zinc, oak bark, pomegranate bark, aud gall nuts. The *liquor aluminis compositus* of the London Pharmacopœia, *(see Prescription No.* 15*)* when diluted in the beginning with water, is an excellent injection. At first it may be diluted with an equal quantity of water, or more. It should be thrown up twice or thrice a day, or oftener. Before the employment of a pessary, an astringent injection should be used for two or three weeks. The *liquor aluminis compos.* may be selected, or one made by dissolving half an ounce of alum in a pint of water.

If the vagina be in any degree ulcerated in consequence of exposure to air and pressure, an ointment composed of *two drachms of Peruvian balsam and an ounce of spermaceti ointment*, should be applied to the parts affected.

We must not omit also to employ internal and general means of invigoration, at the same time that we use local applications, since these will assist in imparting local tone and energy. The bitter tonics, such as quinine, gentian, cascarilla, calumba, or chamomile, may be advantageously employed, in any of the mild forms noticed at the end of this volume, or in the Domestic Medicine; the diet should be mild and easy of digestion, but very nourishing; change of air is very advisable, and the

* In injecting fluids into the vagina in this complaint, it is important that they should remain there for some time, and the operation should be performed in lying down. The syringe should be large, and furnished with a curved pipe, and the piston should play readily in the cylinder. In selecting a female syringe at the surgical instrument maker's, one should be chosen which has several holes at the extremity, but not too many, so that the fluid may pass out too quickly. The holes should not be placed at the sides, since the fluid then escapes at these lateral holes, and little or none reaches the superior part of the cavity.

bowels must be carefully regulated by the electuary No. 9, or by any other gentle aperient.

Cold bathing is worthy of consideration in all cases of this disorder, especially cold sea bathing, unless the patient is disposed to an inflammatory affection of the chest. It may be used twice a week in the beginning, and an advance gradually made to its daily use. When persons are at a distance from the sea, and cannot procure sea-water, the best substitute is, to dissolve two pounds of salt in a gallon of water, into which coarse towels should be immersed, and afterwards wrung out and dried: after bathing, the patient is to be dried with these towels, with a good deal of friction. In this way, something of the glow diffused over the body after sea-water bathing will be obtained. A solution of sea salt in water, (about a pound, or a pound and a half of salt to every gallon of water,) employed as a shower-bath, is a good substitute for bathing in the sea.

We have now to advert to the supporting of the womb in its proper situation, and one of the best means of accomplishing this is by the use of a *pessary*.* There is a great difference of opinion among medical men in regard to the best sort of *pessary*. The majority say the *oval* form is the best; some assert that the *circular* deserves the preference. It is a general opinion that the latter is less likely to be removed from its place, which is certainly a great recommendation. The chief thing is to have a pessary well fitted to the parts. The *oval* form is most commonly used in this country, the *circular* in America, The oval pessary is made of wood, as combining firmness, lightness, and closeness of texture, and no pessary should measure in thickness, at its external edge, less than one-third of an inch, lest it should injure the parts by its edge: it should become gradually thinner as it approaches the centre, in which there should be an oval opening through the long diameter, large enough to hold

* Some medical men object altogether to the use of pessaries, but this may be because they know not how to use them, and know not their value, not because they are not valuable. My opinion is, that they are harmless things, and often a very efficient remedy for this malady; and a very great recommendation to them is, that the relief they afford when well placed is sometimes immediate, and often perfect—the use of the pessary establishes a cure. Many women have been cured by the employment of a suitable pessary in six or eight months;—it does not prevent the occurrence of pregnancy.

the end of the fore-finger, in order to its being so perfectly commanded as to be properly placed. It is very desirable that a number of holes should be pierced through this instrument (if made of wood), as it is thus made lighter, and all secretions find a readier way of escape. The pessary should be removed occasionally for the purpose of cleansing it, otherwise the surface may became coated with such matter as will excite irritation and ulceration. In introducing the pessary, supposing it to be done by any other person than a physician or a surgeon, (who should be a person of judgment and tenderness), it is best for the patient to lie on the left side, (or horizontally) close to the edge of the bed, the knees being drawn up towards the belly: then, after covering the pessary with a little lard, it is to be very carefully introduced by its short diameter, that is, in the easiest manner, and in this direction it must be carried fairly up into the vaginal passage. The point of the fore-finger should then be inserted into the opening* in the centre of the pessary, and placed *across* the vagina, so that the ends may be turned towards the hips; and it should be passed as high into the passage as it can be without giving pain, and be left there.†

A very good circular pessary may be got, made of silver, strongly gilt; it is hollow, and pierced with a central hole of only a sufficient size to permit the escape of the discharge incident to the parts, There are three different sizes; the medium size is two inches and four-tenths in diameter; the difference in size is only one-eighth of an inch either in addition or reduction. It has an excavation to receive the neck of the uterus.

Of course it can scarcely be well introduced but by a professional man. The directions for its introduction are similar to what we have already laid down, only every experienced professional man will be able to vary the mode of introduction according to circumstances. Let it be remembered that the chief points are to select a pessary of proper size, and so to

* It should be remembered, that the direction of the opening in the instrument is to correspond with that of the long diameter of the instrument itself.

† A new shield pessary has lately been invented, by a Mr. Duffin, and is to be procured at Messrs. Stoddart's, 401, Strand. I have not tried it, but it has the sanction of some eminent practitioners, and I think it worthy of being sought after by females suffering in such a way as calls for the use of this instrument.

pass it up the vagina that it may be felt *comfortably* to support the uterus. If it be too large, it will give pain; if too small, it will easily escape.

But a more manageable, and, I believe, an equally effectual instrument for supporting the womb, is the *prolapsus truss* made by Eagland, of Coventry Street, Haymarket. This is an invaluable instrument, and should be worn by every female suffering from this malady. It is so necessary and effectual that I entreat the ladies of Great Britain never to neglect to supply one to their poor neighbours who are found to suffer even from *a bearing down*, and in whom therefore the existence of such a complaint may well be suspected. To a poor woman, suffering in this way, a spring truss of this kind will be an invaluable boon. There are two kinds, one called the *simple truss*—the other, the *spring truss;* the latter is by far the most useful.

The consequences of a prolapsed uterus are often more extensive and severe than are usually suspected. Many women suffer extremely from *pain in the side*—or from *severe nervous affections*—or *habitual colic*, &c., complaints which are not suspected to be owing to this prolapsus; and therefore we cannot wonder that many have accordingly gone the round of bleeding, leeching, blistering, free doses of calomel, tonics and stimulants, without the least benefit, and have been cured only by the use of a pessary, or a truss, and other appropriate measures. In proof of this statement, we would submit the following instructive cases:—

Case 1. A lady of middle age, applied for advice for a severe pain in the left side, immediately under the margin of the false ribs, extending to the spine of the ileum of the same side. She had had this for several years, with more or less severity, and for which she had undergone severe medical treatment, such as bleeding, purging, blistering, leeching, &c., without the slightest benefit. The pain was not increased by respiration, pressure, or motion, but some relief was constantly experienced upon lying down. She had severe *fluor albus*.

A variety of medicines was prescribed for her, with no better success than those advised by her previous medical attendants. It seemed doubtful whether we should be useful to her, but thinking the *fluor albus* might arise from a prolapsed uterus, the suspicion was mentioned to her, and the propriety of an examination to ascertain the fact stated. She submitted to this, and the womb was found low in the vagina.

Astringent injections were ordered for her, and were persevered in for three weeks, with the view of giving a temporary tone to the vagina, before the pessary was introduced. At the end of this time, a circular silver pessary was introduced, and immediately after the lady was able to stand on her feet, freer from inconvenience than she had been for several years. The pain in her side soon left her entirely.

Case 2. A lady had been for several years afflicted by a train of severe nervous affections; she would frequently, from the slightest causes, be thrown into violent hysterical paroxysms; she had also a fixed pain in the left side, which part would occasionally appear to swell, and become extremely painful to the touch. Her appetite was good, but her stomach so weak that she could digest only certain articles; her bowels were constipated, and she had profuse *leucorrhœa*. She was considerably reduced in flesh, and much debilitated.

This lady had tried a variety of remedies, more especially for the pain in her side; she had been repeatedly bled and blistered (a too common practice), without the slightest advantage; took mercury to a considerable extent (another common and bad practice); was freely purged and vomited, but all to no purpose. The pain was usually considered a spasm of the stomach; and upon its being suggested to her that it probably depended upon a prolapsus of the womb, she said no such thing had ever before been suspected.

Upon a proper examination having been made, a prolapsus was fully detected. After a little preparatory treatment, consisting of small doses of rhubarb daily, with astringent injections, the pessary was introduced with complete success. The pain in the side left her, and all her symptoms were either cured or materially relieved: all palpitation of the heart and nervous sensations quickly departed.

Case 3. A lady who had suffered for above ten years with a pain in her left side, which was often of an extreme degree, producing various painful nervous affections, could gain no relief from all the means tried, and it being thought they might originate in prolapsus of the uterus, the proper examination was made, and this was found to be the real cause. The symptoms which led to the suspicion of *prolapsus uteri* were, besides the pain in the left side, great uneasiness in standing or walking much, very troublesome *fluor albus*, bad digestion, pain in the back, and severe numbness down the thighs.

A pessary was employed in this case, and succeeded in relieving the patient in a most satisfactory manner, notwithstanding the length of time the disorder had continued.*

In almost all cases of very severe *prolapsus*, in which the disease is unusually great, there is danger that the pessary, of whatever kind it may be, will be forced away by the ordinary

* *Dewees' Diseases of Females, p.* 228.

efforts of the woman, and it may not be easy to retain it by any common bandage. But by the following contrivance, Sir Charles Clarke says, (*Observ. on the Diseases of Women, part* i. *p.* 12,) the *globular* pessary may be kept in the vagina. "In the first place, a pessary is to be chosen of the size which the case requires, and a small slip of brass is to be attached to it, by its two ends, leaving a space between the pessary and the centre of this piece of brass: a belt of leather, long enough to go round the patient's body, is also to be prepared; to the centre of which behind, a brass wire, as thick as a common quill, is to be attached by a screw. This wire is now to be properly bent; and the pessary being introduced into the vagina, the wire is to be passed between the pessary and the piece of brass attached to it; and being brought up between the thighs, it is to be attached to the fore-part of the circular strap. The reduced parts are by this means supported by a pessary, and this is kept in its place by the unyielding piece of metal."

If a patient with this disease becomes pregnant, the disease will be naturally cured after the fourth month, by the ascent of the womb into the cavity of the abdomen. And should the prolapsus of the womb occur in the early stage of pregnancy, the part should, nevertheless, be reduced.

But after all that is said in the preceding pages respecting the management of *prolapsus of the uterus*, some of my fair readers will be disposed to put this question—Is there no radical cure for this complaint without the use of the pessary, at least in the recent and less severe examples? I shall be glad if I can direct to the use of means capable of effecting this. The celebrated Parisian surgeon, Baron Larrey, has pointed out means which promise well in reference to this point, and which, in my opinion, merit the attention both of the profession, and every sufferer. It seems that this complaint is even more common in France than in England. Larrey conceives this complaint to be owing to two causes, namely, either an asthenic (debilitated) thickening of the parieties of the womb, or an elongation or relaxation of the ligaments.

The first remedial measure he recommends is cupping the loins, the groins, and other places, as near as possible to the seat of the engorged organ. When this has been effected, he

applies the *moxa*, two at a time, to the parts just mentioned. He remarks, that we need not fear to reiterate the application of moxa from time to time, assisting the measure by the horizontal posture, elevation of the pelvis, and flexion of the lower extremities; to which may be added cold and astringent applications and injections, laxative lavements and mild nutritious diet. By two, three, or four months of this treatment he says he has succeeded in completely curing several cases of *prolapsus uteri*. One of the cases related is the following—"Madame de C——, aged twenty-seven years, tall, and of exquisite sensibility, after a laborious fourth accouchement, became affected with a *prolapsus uteri*, where the organ appeared visible. She consulted an accoucheur, who ordered her to wear a pessary. The introduction of this instrument was difficult and painful, and its remaining there was very annoying to the patient, preventing the passage of urine and stools, except with great pain.* After six weeks perseverance in this plan, she consulted Larrey, who proposed the removal of the pessary, and the adoption of the means already described. She complied with his proposal, and in six months the cure was so complete, that this young lady could take long and fatiguing journeys on foot, without any inconvenience."

A decided mode of cure which has been proposed, and has actually been practiced with success, is inducing inflammation and adhesion in the parieties of the vagina by an incision, and the removal of such a portion of the mucous membrane of the vagina as, on the contraction consequent on the healing, will be sufficient to keep up the uterus. Such an operation has been performed by Dr. Heming, of Kentish Town, and may be read in his translation of Boivin and Duges' Treatise on Diseases of the Uterus, *p.* 53. He says, the principle upon which his case was treated, is illustrated by a fact detailed to him by Dr. H. Holland: a pessary introduced in a young person to support the uterus, subject to be completely prolapsed, induced great inflammation. This was followed by such firm contraction of the vagina, that the uterus ever afterwards remained in its proper situation.

* This probably was owing to an unskilful use of the pessary—it was too large. We however admit that some women cannot wear the pessary.

OF CARCINOMA OF EXTERNAL PARTS.

I am sorry that I have omitted to notice this subject at the termination of the article on Cancer of the Uterus, which is its proper place. It will, however, not be unacceptable to the reader to introduce it here.

Among the many valuable aids which chemistry has supplied to medicine, we may reckon the *chloride of zinc*, an article which has been recently recommended very strongly, and by able practitioners, as a remedy in some cases of cancer. Beside the carcinomatous affections of the breast and womb already noticed, women are liable to a similar disease in the *nymphæ* (the visible red lips of the external parts of generation) and *vagina;* and for such malignant swellings the chloride of zinc will prove, I think, a valuable remedy.

The disease in this part usually begins as an ordinary inflammation and swelling of the parts affected, and the patient fancies all that is necessary is to foment and poultice, and thus the evil will soon be got rid of. The medical practitioner also is likely to be deceived in the beginning, and to imagine that the addition of alteratives and aperients, &c. will certainly cure the patient. Both are, however, deceived; in a few months they find that the enemy is not so soon to be conquered, that he has taken a powerful grasp, and will not be dislodged but by having recourse to some extraordinary measures.

I am attending, with Sir Benjamin Brodie, at the present moment, while this second edition is passing through the press, a case of this description, and during the last summer I saw another while travelling in the country. The present lady is of a very irritable constitution, and first noticed the disease about twelve months since. Sarsaparilla and mercurial alteratives, with a slight caustic lotion to the parts, have done her a great deal of good—improved her general health, and for a time improved the appearance of the diseased surface, and much relieved the pain; but from time to time the acute sufferings returned with all their original force,* and we are now assured that no hope remains for the patient but removing the

* I tried iodine, both generally and locally, in full doses, but it produced little or no good effect.

disease altogether, (which is at this stage of small extent,) by means either of the knife or caustic. The chloride of zinc has just been used, and thus we expect to treat a case successfully, which might not terminate favorably by any other means whatever.

This malignant affection is rare, and seldom attacks more than one nympha at a time; the part is tender, and found inflamed on inspection; by degrees it swells, with the external lip of the same side, and in a few months a small part of the surface of the nympha is observed to be denuded, which occasions a great increase of soreness and pain, and also of pain in making water, from the urine passing over the abraded skin. At the same time much pain is experienced in the loins and down the thighs. At length a hardness is felt in the most painful part of the nympha, and darting pains come on, which often prove very severe, disturbing the patient's rest at night; indeed, if the best measures are not employed, (unless we give opium liberally,) the patient's life is one of great misery, and even the best means procure only a short and unsatisfactory respite.

The nympha is an awkward part to apply the chloride of zinc to, but it may be done by a skilful hand very well, and the opposite sound side be well defended from any action of the caustic by means of scraped lint. Of course, the management can only be undertaken by an experienced professional man, and therefore I need say nothing about the mode of its application here. The same remarks are applicable to the treatment with chloride of zinc, of the spreading cancerous ulcer sometimes found in the *vagina*.

I may, perhaps with advantage to some persons, now mention that the chloride of zinc is very useful in cancer of the face and lip, and also of the breast. It will cure cases of carcinoma in the face and lip, and often very much relieve the patient in carcinoma of the breast. It cures the former by extirpating the whole of the disease, and relieves the latter by converting an unhealthy, offensive, painful ulceration *for a time*, sometimes for months, into a clean ulcerated surface, attended with very little pain. The difference in the results in these two kinds of cases is determined by a difference in the malignancy of the carcinoma. It is admitted by professional men of experience that

there is an evident difference in this respect in cases of cancer; some are so malignant, especially when seated in the breast and womb, as to set at defiance all attempts to remove them, even with the knife, and at an early stage; while others, found in the *nymphæ*, *vagina*, face or lips, although malignant enough to be irremediable by any measures short of those productive of destruction to the part, yet do not contaminate the constitution, nor are other tissues affected, after the removal of the primary ulcer or induration.

OF FLUOR ALBUS, OR WHITES.

This disorder, sometimes also designated by professional men by the term *Leucorrhœa*, and by ordinary persons "*a weakness*," is a discharge of a fluid flowing from the vagina, and sometimes also from the neck and internal membrane of the womb, varying in its consistence, quantity, and colour; either produced by weakness of the constitution, or by a change in the structure, position, or actions of the neighbouring parts, such change being the effect of natural or morbid causes. The whites are by women suspected to be the cause of every disease which they may at the time suffer, but, as just noticed, is generally a symptom of some local disease, or a consequence of great debility of the constitution, though when profuse, it becomes a cause of yet greater weakness.

Of the many diseases to which females are liable, none are more common than discharges from the vagina. It is material to observe, they are of various kinds, and very often discharges presenting a different appearance, arising from dissimilar causes, and requiring different treatment, are all classed under the term *whites*, and treated very nearly alike. The want of distinguishing the difference in the causes and nature of these discharges, has led, and still leads, to great and sometimes serious errors in medical practice; and, therefore, it is necessary to divide them into the four different kinds usually met with in practice, viz:

1. *The Transparent Mucous Discharge.*
2. *The White Mucous Discharge.*
3. *The Purulent Discharge.*
4. *The Watery Discharge.*

All the vaginal discharges of women, (if we exclude the menstrual and bloody discharges,) may be comprised under the above four heads; and in order to give my readers, in any degree, a just view of them, it is not only expedient, but indispensably necessary, to treat of them separately. Women are very much in the habit of allowing the whites to go on for a considerable time, without seeking advice, but I hope that the facts here brought forward will deter all my readers from this pernicious practice, and convince them that it is not a disorder which will bear trifling with.

No one can form a correct judgment of cases of *fluor albus*, that may be submitted to him for advice, or afford the best directions, who does not attentively consider the difference in the qualities of the discharge, in different instances, above referred to; we may, nevertheless, take a general view of the subject here, as it respects the seat, causes, symptoms, and other circumstances worthy of notice, in this very frequent complaint. See what is said of PROLAPSUS OF THE WOMB as a cause of *whites*.

The discharge does, undoubtedly, sometimes proceed from the glandular apparatus, and internal membrane of the womb, but the vaginal passage is the most frequent source. Perhaps, among the most common of the predisposing and exciting causes of the disease are,—a scrophulous habit; irritable nervous system; derangement of the menstrual secretion, as in green-sickness, &c.; frequent child-birth or miscarriages; protracted suckling. It prevails more in autumn than in any other season of the year. Moisture and cold unquestionably predispose to the disease; and the impure atmosphere of large cities and crowded apartments conduces much to its propagation. *Inflammation*, either acute or chronic, of the mucous membrane of the vagina, is an important cause in some instances.

Dr. Dewees, of Philadelphia, conceives that there are three classes of this disorder,—*one of direct irritation*, following inflammation of the mucous membrane of the womb or vagina, produced by some local cause, as difficult labours, irritating substances applied to the surface of the vagina, &c.—*a second, from remote irritation*, which includes all those cases in which the vagina sympathizes with some other organs or structures of the body, as with the womb in long obstructed menses, the

stomach in severe indigestion, or with the rectum when irritated by piles, &c.—*a third*, which is *the fluor albus of habit*, including those instances in which the discharge continues, after any previously existing active or inflammatory condition of the parts have ceased, as after a falling down of the womb, which has been restored, &c.

I shall treat of *the transparent mucous*, *the white mucous*, and *the purulent discharge*, under the head of *Fluor Albus*, but the watery discharges from the womb, being of a distinctive nature, I mean very easily distinguished, and arising from very peculiar causes, demand a separation, and will be found noticed under the head of *Watery Discharges from the Uterus.*

1. OF THE TRANSPARENT MUCOUS DISCHARGE.

This is a mucous discharge which is *gelatinous, nearly transparent, and capable of being coagulated.* It is usually unaccompanied by any alteration of structure in the sexual organs, and is the kind of discharge to which the term *whites* is properly applicable. It includes two very distinct and dissimilar cases, whether we regard the cause, the symptoms, or the treatment. *The first* is that which originates from, and is accompanied by, augmented action of the blood vessels of the parts. *The second*, that which arises from debility; in which latter case the former may terminate, and which, consequently, renders the form of debility by far the most frequently met with.

The *first case* here to be noticed, is found in women in the middle of life, of a robust or full habit, with a disposition to vascular activity, denoted by redness of the face, &c. whose habits of life are sedentary, some of whom may indulge much in the pleasures of the table. The pulse here is full, if not strong; the motions are often discoloured, and offensive; sometimes the patient has giddiness, and is attacked with fits of sleepiness, with some pain in the head. The vaginal discharge increases in quantity, the menstrual fluid likewise is augmented, and the intervals between the periods are generally shorter than natural. Sometimes these symptoms are relieved by a spontaneous bleeding from the nose; but whether they are thus relieved or not, the state of the patient is such as should lead her immediately to seek for the best advice. Many years may elapse before any danger is apprehended, but it has been

frequently known that then, all at once, the woman has been attacked by a fit of apoplexy, or by some great internal hæmorrhage, which has destroyed her, with greater or less rapidity. These cases are mostly found in higher life.

Treatment. The real causes of this state having been shewn to consist, mainly, in too sedentary and luxurious a life, and derangement of the liver and bowels, the objects of treatment clearly are, to unload the vessels, by taking away some blood; to restore the healthy action of the liver and bowels; and then to moderate the discharge. Women of the class now considered are generally weak, although they may have the appearance of strength, and, therefore, caution should be used in the employment of lowering measures. I would recommend twelve ounces of blood to be drawn immediately from the arm, if the patient has lived freely, or several ounces to be taken by cupping from the loins, or from the region of the liver, when there is reason to suppose it affected. Afterwards, half the draught No. 6 may be taken twice a day in the beginning, and subsequently once a day, so as to keep up a regular but moderate action on the bowels, or the mixture No. 35 might be taken twice a day for the same purpose; while the blue pill No. 22 is taken every night for a month or more. The diet should consist chiefly of vegetables and light puddings, with very little animal food; all fermented and spirituous liquors being avoided, excepting where the individual has been long accustomed to stimulants, when one glass of good sherry wine may be allowed daily.

Sarsaparilla, being a valuable alterative, may often be given with advantage. The most pleasant way to take it is in doses of two scruples or a drachm of the *compound extract*, mixed in dill or common water, thrice a day; but it is not so efficacious as the powder. The dose of the powder is one drachm, or a drachm and a half in common or dill water, or in three or four ounces of the compound decoction, thrice daily.

Until the fulness of habit has been removed, the best injection into the vagina will be tepid water, or a thin decoction of poppies; but when the plethoric state has been reduced, a weak solution of sulphate of zinc, or superacetate of lead, (as of one grain, or more, of either of these salts to an ounce of water,) may be advantageously used, with a female syringe, thrice a day.

There is a case of *fluor albus* dependant on *local* increased action of the vessels, the state of the constitution not being much concerned in it. This may arise from excessive venery, and women who have frequently miscarried, or who have borne many children, are most subject to it.

In this case the treatment is chiefly local, and injections into the vagina of the solution of the superacetate of lead, or nitrate of silver, or of diluted kreosote, are of superior efficacy. The bowels must be regulated by very mild means, and the system in general invigorated, by means of quinine or steel, cold bathing, and a generous diet wisely selected.

I have lately met with the case of a married lady, about thirty-five years of age, very satisfactorily treated on the principles now laid down. When I first saw her she had been suffering severely from this disorder for nearly two years, without gaining any decided relief from medical advice.

The commencement of her malady was a very severe miscarriage, associated with subsequent neglect and bad management of her case. She suffered much from *fluor albus*, pain and uneasy sensations in the regions of the uterus in walking, or standing long, or even in driving, great pain in the loins, and general debility. This lady's appetite was good, her digestive organs appeared in good order, the bowels and menses were regular, and her rest at night very tolerable; but the tender, weakened, painful state of the parts just named, was a source of continual trial. She was much harassed by an indescribable itching or irritation in the vagina and uterus, which would frequently and suddenly come on without any apparent exciting cause, and continue for two or three hours or longer.

This lady had been married about three years, and soon after her marriage she proved to be pregnant, but since the miscarriage, a period of about two years from my first seeing her, no prospect of a family, to her great affliction, had ever been presented. She was told that we thought she certainly would get well; that although the effectual means had not then been found out, there was no reason whatever to be discouraged; on the contrary, we entertained a very favourable opinion in regard to the issue of the case, and rather expected that before the termination of that year she might be so much recovered as to find herself as she wished to be. The whole of our expectations were fully realized—after three months' treatment the *fluor albus* was much lessened; the uneasiness and pain in walking or standing were by no means so severe; the peculiar itching irritation had abated, and no symptom of her malady continued unrelieved. The remedial measures which proved of most service to her was sarsaparilla, which was given in different forms at different times,—a mild alterative pill,—cupping on the loins,—tincture of cantharides,—the injection of warm water, and washing the abdomen with cold salt and water.

This lady frequently remarked, that it was a matter of great surprise to her that she had remained so long in such a suffering state, while many of her friends, who had had as bad a miscarriage as herself were then well. The reply to this was, that even in the same disorder, there exists a great difference in different patients, arising often from a source which we cannot readily discover; and I may be permitted to remark here, that the extraordinary severity of this case of *fluor albus*, and its long standing, proves satisfactorily the value of the measures which were adopted. The patient continued to improve progressively, and in three months more was pregnant, and almost free from complaint.

The *second description of case* of transparent mucous discharge, is that dependant on *debility*, the symptoms being a pale and dirty yellowish appearance of the skin; swelling of the legs and feet at night; often, a loss of flesh; costiveness; pain in the back, and the usual indications of debility, as a languid circulation, feeble pulse, impaired appetite, nervousness, and palpitation of the heart.

The *causes* of this debilitated form of *leucorrhœa* are, previous chronic diseases, profuse hæmorrhages, anxiety of mind, living in a moist relaxing atmosphere, or in hot rooms, or suckling too long.

Treatment. The usual remedies for restoring the vigour of the frame are required, particularly mild and nourishing food suited to the powers of digestion,* both in point of quantity and quality, as roast mutton, lamb, fowl and game, animal jellies, fresh eggs, sago, and plain biscuit, with or without a little good wine; to which we must add tonic medicines, beginning with the mildest, as infusion of calumba and cascarilla, and carbonate of soda or ammonia, as in No. 16, and advancing to the use of quinine, zinc or steel. In some obstinate cases, *the volatile tincture of guaiacum* will be found a very efficacious medicine, or, what is still more efficacious in certain instances, a combination of powdered guaiacum and extract of hemlock. I have reason to think the latter an admirable medicine, in numerous examples of this complaint. Sarsaparilla has, likewise, great power in improving the state of the constitution, and it may sometimes be combined with quinine with increased

* If any particular directions on this point are wanted, they will be found either in my *Modern Domestic Medicine*, article *Indigestion*; or in the *Best Methods of Improving Health*.

advantage. Fifteen drops of the tincture of muriate of iron in the cascarilla infusion, twice or thrice a day, is a very good medicine, and so is twenty drops of the diluted sulphric acid in infusion or decoction of bark: or twenty or thirty drops of the tincture of muriate of iron may be taken, twice or thrice a day, in water. Cold sea bathing, or the shower bath, are excellent remedies; and the injections into the vagina must be of a solution of superacetate of lead, of sulphate of zinc, or diluted kreosote. The kreosote injection is made by mixing together thirty drops of kreosote, and four drachms of spirit of wine, and then pouring on it seven ounces and a half of boiling water.

The *alterative tonic mixture*, *No.* 36, will be found worthy of notice in this complaint, especially in scrophulous habits.

Some professional men very confidently advise injections of weak solutions of the nitrate of silver, in the proportion of one to three grains of that salt to an ounce of distilled water. At the Lock Hospital, very strong solutions of the nitrate of silver are used in injections, as a scruple or half a drachm to the ounce of water. Two or three drachms of the common Goulard's extract to the pint of distilled or rain water, used cold or warm, according to the sensation of the patient, forms a very good injection; and Dr. Locock (*Cyclopædia of Pract, Med. part* xiv. *p.* 38,) says, "in some severe cases he has seen benefit from introducing a piece of lint soaked in a liniment, consisting of equal parts of Goulard's extract, Battley's laudanum, and mucilage" of gum arabic.

The bowels must be regulated by the pill No. 19, and when the biliary secretion is sluggish, a little blue pill every night, as in No. 22, will be of great service.

If the patient has been living in a moist unhealthy situation, it is absolutely necessary that she should be removed to one which is dry and salubrious, if her means permit; but if her means do not allow of this, let her not despair, for meekness and patience will, under such uncontrollable circumstances, often work mightily together with the means previously noticed. This complaint has frequently been seen in women living in damp situations, and in the crowded parts of very large cities, in whom it has quickly disappeared upon a removal to a more healthy spot.

Exercise in an easy carriage is preferable to walking, but

that on horseback is better than either. The chamber horse affords good exercise in wet weather.

The *whites* met with in female children is readily cured by great attention to cleanliness, and the use of the injection of sulphate of zinc and water, No. 12.

When this complaint is encountered in pregnant women, little should be done beyond frequent washing with cold or tepid water, unless it is very profuse. The sarsaparilla may be given in these last cases. Those females who suffer most from this complaint have usually the easiest labours.

It is worthy of particular notice, that in many cases the discharge in *leucorrhœa* cannot be suddenly checked, without great injury to the patient; such are the cases of acute attack, where the inflammatory symptoms are severe, and also those chronic cases which are of long standing. In the former instances, it would be as injurious, says Sir C. M. Clarke, "suddenly to restrain the discharge from the parts, as it would be to put an end to the natural salivation of a teething child whilst the determination of blood to the head continues," or in the latter case, "to heal an ulcerated surface in a constitution which has been long accustomed to it, without substituting some other secretion for it."

2. OF THE WHITE MUCOUS DISCHARGE.

In this form in which the *whites* appear, (if we may apply that term to it,) *the discharge is opaque*, of a *perfectly white colour*, *resembling in consistence a mixture of starch and water* made without heat, or *thin cream*. It is easily washed from the finger, and is capable of being diffused through water, rendering it turbid. In some cases it is much thicker than cream, having the tenacity of glue. The investigation of the discharge must be made when the patient has remained quite quiet, otherwise by friction a creamy appearance may occasionally be given to the transparent discharge, previously noticed,—the distinguishing mark, however, is, that it does not render water turbid.

The *immediate seat* of the affection giving rise to this discharge is probably the neck of the womb, (the most sensitive part of the whole organ,) where there is a tenderness felt on pressure, and chronic inflammation. There is, however, no

alteration of structure in the part. This peculiar white mucous discharge is never met with in large quantity; the constitution or monthly periods are rarely affected in this complaint, the healthy functions being little, or not at all interrupted. There exists, however, in many cases, considerable pain in the back and lower part of the belly, especially about the monthly periods.

The *causes* of this affection are not always easily ascertained, but rough horse exercise and dissolute habits have been known to produce it.

Treatment. In ordinary cases, the best treatment consists in abstracting a little blood from the loins or lower part of the belly, by cupping or leeches; using the hip bath, once or twice a day, at 92, or 95 degrees, or warm fomentations; keeping the bowels regular by means of lenitive electuary, castor oil, or the electuary No. 9, and injecting tepid water into the vagina. At bed time, we may give a pill composed of three grains of Dover's powder and three grains of camphor, with or without the draught No. 17, as circumstances indicate. These medicines are recommended to determine to the surface of the body, and tranquillize the system. It is not necessary to confine the patient to bed; but the horizontal position should be persisted in for some time.

When much difficulty in making water exists in this complaint, a grain of opium may be introduced into the rectum, or the anodyne draught No. 7 may be taken, and mucilaginous drinks are very proper.

Sometimes the white mucous discharge is met with in enervated constitutions, and then we must as soon as possible have recourse to tonics, and must be very cautious in drawing blood. I think sarsaparilla (see p. 42) a very valuable medicine in this complaint. Iodine, also, from its specific effects on the uterine system, will sometimes be of great service; or the tincture of iodine may be combined with *Moxon's compound essence of sarsaparilla*, or with the compound extract of sarsaparilla. Should circumstances be present indicating the form of pill to be preferable, the following prescription may be used:

Take of iodine, three grains; compound extract of sarsaparilla, three drachms. Mix them well together, and divide the mass into thirty-six pills; three of which are to be taken twice or thrice a day.

In severe examples of this affection, which have resisted other treatment, the injection of a solution of nitrate of silver may be tried.

In all cases of *fluor albus* it is an excellent practice to wash the whole abdomen every morning well with cold salt and water, or to use the cold hip bath. The hip bath should contain two gallons of cold water, and the patient must sit in it for ten minutes, then walk a little after it.

3. OF PURULENT DISCHARGES.

Pus is a *heavy yellowish*, sometimes *yellowish-green*, *opaque* fluid, possessing little tenacity. Women are very subject to purulent, as well as mucous and watery discharges; the quantity of the purulent discharge is seldom very profuse, and never so considerable as that of the watery description. Large purulent secretions are very exhausting and injurious to the frame. A discharge of *pus* (or *matter* it is commonly called,) may arise from *inflammation* or *ulceration;* and the *inflammation* may be either *of the womb*, or of the *vagina* or passage to the womb.

The discharge of pus from *ulceration* of the womb is by far the most serious of this class of complaints, and will be adverted to afterwards.

OF THE SECRETION OF PUS, CONSEQUENT ON INFLAMMATION OF THE INTERNAL MEMBRANE OF THE WOMB.

When the pus secreted can readily find its way into the vaginal passage, few symptoms exist except heat and uneasiness experienced in these passages. In the commencement of this disease the patient is attacked by acute pain in the back, and at the bottom of the belly; the pain is constant in acute cases, and in passing the finger up the passage the practitioner finds the womb tender to the touch, and its size increased,—and the parieties of the womb gradually yielding, its bulk becomes very considerable. The pain is aggravated by pressure on the lower part of the belly, and sometimes also in attempts to make water, and in going to stool; and violent bearing down pains often come on in paroxysms. The pulse is generally quicker than natural, and the skin is hot; but in the more

chronic cases, the pulse may be feeble, and the feet and hands cold. In some instances, the disease is ushered in by a violent attack of shivering, followed by great heat. Soon a sudden burst takes place, the patient being sensible that something has given way within her; and a large quantity of *pus* of a very offensive smell escapes, the symptoms being thereby immediately relieved. During some days, small quantities of *pus* are evacuated, and at length the patient returns to health; the womb returning to its ordinary size.

The duration of this disease will depend on the degree of the inflammation, and upon the disposition which exists in the sides of the womb to yield to the distension. It has been known to continue for weeks, when, after the vigorous use of local blood-letting, purgatives, the warm bath, and opiates, the patient has been suddenly relieved by a discharge of matter.

This disease attacks women at all ages, and exposure to cold, and light dressing, especially during the monthly periods, are very frequent causes

Treatment. Those remedies which are found useful in removing inflammation are clearly indicated, as twenty leeches to the groin or back, or lower part of the belly; and in women of a full habit, six or ten ounces of blood may at once be drawn from the arm. The hip bath should be used twice a day; the bowels freely relieved by the draught No. 6; warm water be thrown into the vagina, and every night a few grains of Dover's powder may be given to allay irritation, and procure rest. In order to allay pain and irritation, pills of extract of hemlock or henbane may sometimes be given with great advantage.

In those *chronic* cases of inflammation of the mucous membrane of the womb, which are of considerable standing, the symptoms being the same as above described, only not so acute, the woman often being enabled, notwithstanding her suffering, to go abroad, and having some intervals of ease;—we are called upon to treat the patient on the principles laid down in this volume, as applicable to chronic inflammation or disease.* The best remedies are a very mild alterative or tonic in the

* In the last edition of my *Modern Domestic Medicine*, there is a distinct article on the Nature and Treatment of Chronic Disease, to which I would refer the reader in reference to this subject.

day, as sarsaparilla powder, or *Moxon's concentrated essence*, (or some other preparation of sarsaparilla,) or, if that does not suit, the zinc or quinine pills, No. 20 or 29; with a mild mercurial pill every night, as No. 22. In some cases, four grains of the extract of hemlock and one grain of Dover's powder, in a pill, taken thrice a day, will be found very useful. *Iodine*, as in the formula No. 18 or 27, may be advantageously tried, if the preceding remedies fail. The hip bath is always beneficial; the electuary No. 9 is an excellent medicine for regulating the bowels. The diet should here be mild but nourishing, and the patient should have as much pure dry air as she can take.

OF SECRETION OF PUS, PRODUCED BY INFLAMMATION OF THE MUCOUS MEMBRANE OF THE VAGINA.

The surface of the vagina is of considerable extent, and therefore the purulent secretion from it is sometimes very great. The complaint begins by a sense of heat referred to the orifice of the passage, and extending, to use the patient's phrase, "*up the body.*" Often there is a burning pain, affecting all the internal parts; an intolerable itching of all the external organs; and the external parts are enlarged. The sexual feelings become stronger during the continuance of the disease; a sense of burning is experienced in the act of making water, arising partly from the disease affecting the *urethra*, and partly from the passage of the urine over the neighbouring irritable parts; and the patient is excited frequently to void the contents of the bladder, the urine being passed in small quantities only at a time.

The circumstances producing inflammation of the vagina are a high-seasoned nutritious diet; the free use of wines or spirituous liquors; violent exertions of the body, as in dancing, and exposure to cold:—difficult labours; blows; the irritation of extraneous bodies lodging in the passage; misplacement of the womb, &c.

This disease, being once excited, is much disposed to continue in a chronic form, and after the inflammatory symptoms have all subsided, the discharge will continue profuse for a great length of time, even under the best management.

TREATMENT. For the first few days all that is required is, rest, temperance, avoiding general and local stimulants, mild purgatives, tepid bathing and mucilaginous drinks. When the acute symptoms have passed off, with the painful smarting, &c., quinine, or balsam of capivi, should be taken internally, and one of the astringent injections, No. 12, 13, or 14, thrown up the passage thrice a day.

OF PURULENT DISCHARGE FROM ULCERATION OF THE WOMB.

There are two kinds of ulceration of the womb, producing a secretion of matter, both very painful, yet really differing in the condition of the part giving rise to them.

They are,—*The malignant or corroding ulcer of the womb;* and *The cancerous ulcer of the womb.*

Of the latter I have treated under cancer of the womb, and therefore shall here advert only to the former.

The corroding ulcer of the womb begins with a feeling of heat in the upper part of the vaginal passage, but afterwards there is excruciating pain of the burning kind; as the disease advances, it is compared to the effect of a burning coal, fixed, and pretty constant. There exists a copious, fœtid, purulent discharge, alternating with hæmorrhage; small, frequent pulse; pallid countenance, and wasting of the flesh. It rarely occurs till after the cessation of the menses.

This disease is distinguished from cancer by the absence of the fiery *lancinating* pain of that disease, and also of the indurations common to it. On examination, the extent of the surface of the corroding ulcer is immediately ascertained, but no hardness or thickening of the parts is present; and after death, although there will appear abundant evidences of the destructive process, yet no induration, no thickening, or deposit of new matter will ordinarily be found.

TREATMENT. This has been usually considered an intractable malady. It is so regarded by Sir Charles Clarke in his work on female complaints, and he states there are no means known of curing it. But his remarks were penned before professional men had discovered either the medicine called *iodine*, or the external application—*the chloride of zinc*, and were acquainted with their extraordinary powers; we may now,

consequently, hope for better success than formerly in treating this disease.

The ordinary remedies here are those which check and equallize inordinate and irregular vascular action, as drawing blood from the loins by means of cupping instruments, or leeches, regulating their repetition according to the sense of heat or pain present, and the strength of the patient;—using likewise the warm bath, at 94 degrees, once or twice a day; injecting warm water into the vagina; observing a horizontal position, and great care in taking such food as is easy of digestion, and unstimulating. A rather abstemious diet is to be recommended; light fish, pudding, boiled fruits, and vegetables, will perhaps in general constitute the best kind of nourishment.

The bowels must be carefully regulated, either by attention to diet, or by the use of very mild medicine, as the electuary No. 9, or the pills No. 19. To allay irritation and pain, few medicines can be found so suitable as the extract of hemlock, (or henbane,) in doses of four or five grains, or more, in a pill. This valuable medicine may be tried with a curative view, in the dose just mentioned, repeated thrice a day. It has sometimes great effect in inducing malignant ulcers to heal, and almost always very much improves the discharge, and relieves the patient. The powder of sarsaparilla* is another remedy of great value in such cases; and if these means fail of the desired effect, some of our simple indigenous plants are not to be despised, especially the decoction of dandelion, ground ivy, coltsfoot,† or the valuable recipe No. 36.

If a proper trial has been given to the hemlock and sarsaparilla, without satisfactory results, I would strongly advise the use of *iodine*. It has been often proved to exercise an uncommon power over both indurations and ulcerations of a formidable character, as is shown in this volume, and also in my *Modern Domestic Medicine*. See also *Dublin Transactions, vol.* v., and

* For an ample account of the virtues of this extraordinary medicine, the reader may refer to my *Modern Domestic Medicine*.

† I do not think that steel has been fully tried in this complaint; it ought not to be overlooked, but, if other means fail, recourse should be had to it, both in its internal use, and also locally by means of injection. The *chloride of zinc* promises to be still more beneficial as an application to the ulcerated surface. See what is said of it at p. 38.

Medico-Chirurg. Journal, vol. ix. *p.* 197, *vol.* xii. *p.* 429. In this malady, I should probably give from 7 to 15 drops of the tincture of iodine, or of the ordinary solution of hydriodate of potassa, thrice a day, in a wine glassful of water, gradually increasing it to 20 or 30 drops, or more, according to its effects: or the *iodine drops*, No. 18 may be taken. There are, without doubt, cases of this disease, in which the union of iodine and iron promises more relief than the employment of the former medicine alone, since we have here the presence of a very valuable tonic. The prescription No. 27 presents us with such a combination. In addition to its internal use, its employment as an injection so as to bring it in contact with the diseased parts, promises much; indeed, cases are met with in which it is advisable first to try its use only as a local application.

In some cases, mild astringent fluids, as No. 12 or 13, (of half the strength,) may be advantageously thrown up the vagina, or a weak solution of nitrate of silver. Should bleeding occur, it must be restrained by the usual means, pointed out under *Final Cessation of the Menses.*

OF MENSTRUAL DERANGEMENTS.

The menstrual discharge is one of great moment, and the derangements to which it is liable consist almost entirely—

First,—In its too tardy appearance at the ordinary age of this change in the constitution, called RETENTION.

Secondly,—In its interruption after having been established, called the SUPPRESSION *of the Menses.*

Thirdly,—In its excess of quantity.

Fourthly,—In its painful production.

Fifthly,—In its irregularity towards the decline of life.

Of each of these disorders, and the particular condition of body in which they are found, and which associated with other circumstances, gives rise to them, I shall treat at some length. The conditions of body which give rise to them are very different in different cases, not only as it regards fulness or spareness of habit, strength of constitution or weakness, but in several other respects, and this is a point worthy of great attention. There is scarcely any thing which females, and

their friends, are more apt to overlook and undervalue than these circumstances, which I shall, therefore, endeavour, as we proceed with each of these disorders, as clearly and fully as possible to point out.

The average period of the first appearance of the menses is between the fourteenth and fifteenth year in this country; when they fail at this time, much, and sometimes unnecessary, anxiety is evinced on the part of the friends, for the situation of the girl so circumstanced, and it is too common for every indisposition with which she may then be attacked to be attributed to this cause. In the hope of provoking the discharge, now due as is supposed, she is often condemned to medical discipline, and is sometimes much injured by it, especially if the treatment be active. It is extremely difficult to overcome the vulgar prejudices entertained on the necessity of this evacuation, at a certain period of female life, determined by the number of years which have passed, irrespective of all other considerations; and some women are so incorrigible in their wrong notions on this subject, that the medical practitioner is, in a measure, compelled to yield, for the patient's sake, an appearance of acquiescence. For in some instances, did we attempt to convince them of their error, it would not only be labour lost, but, what is worse, would be delivering the patient over to the fearless discipline of some empirical and ignorant pretender to medicine.

The evil and even fatal consequences sometimes arising from disregarding the advice above offered, is affectingly illustrated in the following quotation from *Dr. Dewees' System of Midwifery, p.* 133.

He says, "We but too often call to mind with bitter recollection, the fate of a most amiable and interesting young creature, for whom we were requested to prescribe for the expected menses, but who had not one mark which would justify an interference, more especially as she was in perfectly good health—she was fifteen it is true: and this was all that could be urged by the mother in favour of an attempt to 'bring down her courses.' We relied too much upon the good sense of her anxious parent, and freely explained ourselves to her—she left us apparently satisfied with our reasoning, and we heard nothing more of the poor child for six months, when we were suddenly summoned to attend her, as she was then alarmingly ill.

"When we saw her, she was throwing up blood, in considerable quantities from the lungs, and of which she died in a few days more. The

distressed mother told us, that, though she appeared satisfied with what we had said when she left us, she was convinced we were wrong, and that her daughter's health required the immediate establishment of the menstrual evacuation. With this in view, she determined upon the trial of a medicine of much celebrity, vended by a quack in similar cases. She procured it, and gave it according to directions; in a few days her daughter became feverish—her strength diminished daily, and after a short time she was confined to her bed—she called upon the 'Doctor,' and told him of the condition of her daughter; he encouraged her to persevere, and told her that the fever, &c. was an effort nature was making for the end proposed. She persevered, fatally persevered; for, in a few days more, she lost her only and lovely daughter! We examined the medicine which had been exhibited,—it proved to be the oil of savin."

Instances of very premature puberty are numerous; and it is not uncommon to meet with cases where the menses do not occur till rather a late period of life; but it is an established principle in medical practice, that if the general health is not affected, interference is rarely warranted. It is clear that the lapse of a certain number of years is not all that is required for this discharge to make its appearance; because the *uterus* and *ovaria* must be developed and healthy, before this wills how itself; and this condition of that particular system is always indicated by corresponding changes in certain other parts of the general system: there must and will be evidences of womanhood before this event can happen, and when these are absent, the girl should not be tortured by any forcing medicines.

Before entering on the consideration of the symptoms, causes, and treatment of retained catamenia, it appears advisable that I should offer to my readers some observations on the differences observed in the function of menstruation, in different nations and climates, more especially as the present volume may, like its predecessor, *the Modern Domestic Medicine*, travel not only to the sultry regions of the East, but also to the frozen climates of the North. In the heated climates of Asia and Africa girls arrive at puberty at ten years of age, and not unfrequently at nine, or even at eight. It is reported as a fact, that even at Malta, the native girls of that island sometimes marry before they attain their ninth year, and generally within a year or two afterwards; and it is a matter of history that the notorious arch-impostor Mahomet, was married more than once, when his wife "was full eight years old." "It is

usual in those hot countries, as it is all India over, which is in the same clime with Arabia, for women to be ripe for marriage at that age, and also to bear children the year following."—*Prideaux's Life of Mahomet, p.* 30, 1718. Sir Charles M. Clarke met with a very interesting case of an European child, who went to the East Indies at the age of six years, in whom menstruation took place at the ninth year, and continued to occur regularly during three months; but the girl then returning to a more temperate climate, the secretion ceased, and had not returned when she was twelve years old.*

On the other hand, in Sweden, Norway, and a great part of Russia, menstruation does not often take place till the more advanced ages of seventeen or eighteen. Many suppose that such a tardiness in engaging in a function so essential to reproduction as menstruation is, must have an unfavourable effect upon the population of the countries of the North. Facts, however, are opposed to this opinion, and the explanation appears to be, that in those countries the duration of the function comprehends a more extended series of years; that the women are strong, and *well-constituted;* and that they therefore are competent to menstruate more regularly, and during a longer portion of their lives than the women of the South: whence it results, that in the end they are often found more prolific, and under favorable circumstances, as to the means of living, become the parents of a healthier and more vigorous offspring. Rudbeck, and other writers of reputation, inform us, that the Swedes have usually families of ten or twelve children, and occasionally a progeny equal to twice that number. It is therefore, perhaps, not surprizing, that the population of those countries, in other respects so unproductive, became so superabundant in the times of the Goths and Vandals, as to have furnished large armies of adventurers, first to conquer, and then to colonize distant, powerful, and more favored countries.

But we must reverse the picture: Mons. Virey, in his article on climate, in *Le Dict. des Sciences Medicales,* remarks that the burning climates of the more southern countries of Europe are well known to produce "strongly marked nervous

* *Clarke's Observations on Female Diseases, vol.* i. *p.* 12.

temperaments, and great precociousness of puberty. Hence the women of those countries have scarcely grown out of their infancy, before they become mothers. But mark the consequence: just like those perishing flowers of a day, which the ardour of the summer's sun causes to open in the morning, and in the evening to wither and die, they soon lose their fecundity, and pass rapidly from the morning of their lives toward its decline and close." This fact being well understood by the English residents in India, it is common for them to send their children to England, in order to avoid the known effects of that climate in the production of precocious developements.

The quantity of the menstrual secretion is well known to be materially affected by the climate and habits of life. Women menstruate less abundantly in hot than in more temperate regions, and somewhat more so in the latter than in the colder countries of the North. This difference is to be attributed, in a great measure, to the balancing influence of the cutaneous function of perspiration. Buffon says, (*Hist. Nat. del Homme, tom.* iv. *p.* 491) "In hot climates, where the *transpiration* is greater than in cold countries, the catamenial secretion is less." Mons. Maigrien observes, in *Le Dict. Medicale, tom.* xxxii. *p.* 386, "In general, the women of the South have their periods less abundantly than in those of the North; but we may remark, that those who live under the Equator, as well as those who inhabit the most northern countries of the globe, have scarcely any traces of them. With respect to the former, their fluids are so volatilized by the excessive heat of their climate, as to become insufficient to furnish the means of a menstrual secretion; and as for the latter, the rigour of their cold is such as, by constringing all their natural fibres, to produce similar results." This opinion, although a little over-stated, approaches very near the truth.

In regard to the condition of females in this country, in the respects now alluded to, Dr. Davis has the following useful remarks, in Part X. of "*The Principles and Practice of Obstetric Medicine.*"—"Women of nervous and irritable temperaments, otherwise sometimes called bilious, and melancholic, menstruate abundantly, sometimes profusely; whilst, on the contrary, with those of robust and well-steadied constitutions, the secretion usually appears in sparing quantity, as also in the

cases of persons of feeble and cachetic health, who begin to menstruate late, and who perform the function difficultly and painfully. Females who live in towns, and who have frequent opportunities of engaging in the public pleasures of gay and fashionable society, exposed to all the temptations incident to the possession, or accessibleness, of whatever means may be calculated to exalt the imagination, to inflame the passions, and by excessive or too frequent indulgences, to abuse the appetites, are in most cases the subjects of precocious, profuse, and morbidly irregular menstrual discharges. On the rear of the same class of females, and therefore subject to the same evil results, are the idle, the unfortunate, and the dissipated in all ranks of society." All parents will do well to observe the fact, and act upon it, that all the arts, such as music and painting, including that of design, excite vividly the imagination. Music especially, cultivated too exclusively, and at too early a period, developes an extreme sensibility. Grètry, the celebrated French musician, lost both his daughters on the approach of puberty, which was attributed to an imprudence of the kind just noticed.

It is also worthy of notice, that this evacuation is less abundant with the average of women who live in the country, than with a large proportion of those who inhabit great cities and towns, which is partly owing to the more salubrious atmosphere of the country, and partly to the more regular, active, and useful lives led by its inhabitants.

OF GREEN-SICKNESS.

The *symptoms* of green-sickness,* or *amenorrhœa*, vary a good deal in different cases, but more or less of oppression, languor, debility, and indigestion are present in all instances. The languor extends over the whole system, and affects the mind as well as the body; and hence, while the appetite is inconsiderable and capricious, and sometimes shows a desire for the most unaccountable and innutritious substances, as chalk, lime, &c.; the mind is variable, soon irritated, often pleased with trifles, and incapable of fixing on any serious pursuit.

* It is called *Green-sickness* from the pale, livid, and greenish cast of the skin, commonly present in advanced cases.

The heat of the system is diffused irregularly, and almost always below the point of health; there is, consequently, pallor of the face, coldness of the feet and hands, and of the extremities generally. In advanced cases, the pulse is quick and low, the breathing attended with difficulty, especially in walking, the sleep disturbed, the nostrils dry, the bowels irregularly confined, and the urine either colourless, or depositing a thick sediment. Now and then, there is an irritable and distressing cough; and the patient is thought by her friends to be on the verge of a decline, or perhaps to be running rapidly through its stages. Such severe instances of *amenorrhœa* are not without danger. In general it is easily cured, but when swelling of the feet and legs, and other symptoms of dropsy are present, there is a proportionate degree of danger attending the complaint, and great attention must be given to it.

In the severest cases, there exist such an impaired condition of the blood, such a remarkable deficiency of this vital fluid, as calls for watchful attention.

The principle *causes* are those which depress the vital powers, such as constitutional weakness and relaxation, indulgence in heated rooms and late hours, long residence in crowded cities, or other unhealthy situations, insufficient or innutritious diet, sedentary habits, and constipation. The functions of digestion, assimilation, sanguification, nutrition, and generation, are inadequately performed; and in some cases there is a remarkable want of energy in the organic nervous system, and in the excernent vessels of the womb and ovaria, which prevents them from fulfilling their office.

An impaired condition of the blood itself, is one of the most prominent among the series of morbid changes witnessed in green-sickness. The French physician Andral has particularly noticed this fact in his *Pathological Anatomy*, *vol.* i. *p.* 106. His observations are worthy of being recorded here,—"If this disease, as is now generally admitted, frequently results from a defective formation of blood, the cause of which may reside exclusively in the nervous system,* can we, with any shew of

* This deficiency of blood can very seldom be considered to arise from causes residing exclusively in the nervous system, especially in the disorder now treated of, since the female system always exerts a powerful influence over the circulation.

reason, refer either to irritation or sanguineous congestion, the Proteus-like variety of functional derangements which chlorotic patients so constantly present, such as fainting fits, convulsions, St. Vitus's dance, palpitations, &c.? or, shall we not approach near the truth, in assigning these different diseased phenomena to the same cause which produces them in persons who are reduced to a state of *anæmia*, or bloodlessness, by the deprivation of food, light, or wholesome atmosphere? We may appeal to the test of experience for the further confirmation of this doctrine. Blood-letting employed in such cases, to combat an irritation which in reality does not exist, invariably produces a marked aggravation of all the symptoms; on the contrary, it frequently happens, that by stimulating the nervous system of these chlorotic patients by the physical and moral emotions of matrimony," (and he might have added by steel and other tonics,) " we produce a more natural complexion and colour of the whole cutaneous surface, thus indicating a corresponding improvement in the process of sanguification; and, in proportion as the *anæmia* or bloodlessness disappears, under the influence of this new modification of the nervous system, the whole train of diseased action, the difficult respiration, constant sensation of uneasiness and listlessness, impaired digestion, pain in the stomach, vomiting, and limpid urine, together with all the strange nervous symptoms, which seemed dependent on some organic alteration of the solids, gradually subside, and eventually vanish, as a fresh supply of blood is generated in the system."

Treatment. There are four conditions of the female system, pretty clearly marked, in which the menses are tardy in their appearance, viz.

1. *Where there is little or no development of the female organs;*
2. *Where it is taking place very slowly;*
3. *Where this development is interrupted by a chronic affection of some other part;*
4. *Where a perfect development has taken place, but they do not make their appearance.* The management of these different states is of course different, and we shall treat of them in order.

1. The *first* condition is easily detected, by the absence of all the signs in the system which should characterize puberty,

thus, the breasts are not swelled, but remain dormant; the pelvis is still contracted, and other well known signs of puberty are absent. In a girl thus circumstanced, who, independent of the mere absence of the menses is in good health, it would be more than idle, it would be cruel and dishonest, merely because she had attained her fourteenth or fifteenth year, to subject her to stimulating medical treatment. The diet should be well regulated and invigorating, and the exercises free and active, and these advantages, together with change of air and time, are all that is required to effect the hoped for change.

There are, however, cases where there is not only little or no developement of the female organs, and of the breasts, at an advanced age of youth; but where none is likely to be witnessed, owing to an organic defect in the *ovaria*. In such cases, we are called upon to invigorate the frame to the utmost, by the employment of very mild measures, and thus we do all we can: but it is certain, that, in the majority of these cases, do what we may, we can effect little or no desirable change, for although the skill of the physician can often correct disorder, increase strength, and advance the growth of the frame, yet it cannot supply natural defects. I have now a patient above twenty years of age, who has never menstruated, whose breasts are not developed in the least, and who has the mein, and all the appearances of a child. The practitioner first consulted told the mother that it is owing to debility, not perceiving that the real cause is the absence or malformation of the *ovaria*.

2. The *second* condition is where the necessary changes take place very slowly, which is known by the partial alteration the breasts have undergone, and the other partial alterations easily recognized. Here the general health sometimes slightly suffers, especially if the girl has passed the fifteenth year, and grows tall rapidly: she may be assailed by a train of nervous symptoms, as they are called, such as palpitation of the heart, ringing in the ears, head-ache, a temporary loss of strength upon any sudden exertion, and a loss, or a whimsical state, of the appetite. This condition is not unfrequently accompanied by fluor albus, or the whites, and when it is, it is particularly deserving of notice.

In the management of this case, the indications of treatment are, to invigorate the system in general, and to aid the develop-

ment of the uterine system in particular. The first should be attempted by the establishment of a regular course of exercise, such as riding on horseback, where practicable; walking, in proper weather; skipping the rope within doors, when the weather will not permit exercise abroad, &c.*—also, by proper attention to dress, wearing flannel or fleecy hosiery on the feet, legs, and breast, and thus properly protecting them against cold; carefully avoiding damp and wet places, and partial streams of cold air, especially when warm;—and by a nourishing diet of easily digested substances, both of the animal and vegetable kind. Wine, spirits, and other stimulating drinks should be avoided, but a little good home-brewed malt liquor will sometimes prove very useful.

The assisting the development of the uterine system in particular, is accomplished by such medicines as appear to have a direct or indirect action on the uterus itself, and the principal medicines of this class that I shall mention, are—savine, cantharides, iodine, steel, and aloes. The cantharides is a very good medicine in the condition now referred to, especially if the whites are an attendant: the patient should take twelve drops thrice a day, in barley water or linseed tea, and gradually increase it to twenty or thirty drops thrice daily. As the cantharides is an irritating substance, the patient should drink freely of almond emulsion or barley water, during its use; and should the whites prove obstinate, even more than thirty, forty, or fifty drops may be taken at a dose, since it is of primary importance they should be removed; for we need scarcely look for the catamenia, while this remains in any force, as it seems to act as a local depletion, and thus prevents that partial congestion so favorable to development, and the production of this discharge.

At the same time, the bowels must be kept regular, and for this purpose, few better things can be found than a five-grain pill of *pil: aloes cum myrrh:* every or every other night; or the pill No. 19 may be used. It is very necessary to clear the bowels out well, by giving two or three of these pills before commencing with the cantharides.

* In my *Best Methods of Improving Health* will be found ample directions, and many valuable hints respecting exercise, clothing, diet, &c.

Since the cantharides is a very active medicine, and in some habits peculiarly so, I have pleasure in noticing another which is more manageable, and equally successful—a combination of aloes with sulphate of iron. This is a very valuable pill; one which I have seen of uncommon service.

Take of sulphate of iron, and socotorine aloes, of each, one scruple; gum mastic, five grains. Make them into a mass, by means of the essential oil of cloves, or carraway; and divide it into ten pills. One to be taken thrice a day. If they act too much on the bowels, the aloes should be lessened in quantity nearly one half.

If these pills are not effectual in curing the patient, I recommend a powder twice a day, composed of five grains of sulphate of iron and ten grains, or more, of Epsom salts. These are to be mixed together, and taken in water. I know nothing half so efficacious as the pills just described, or these powders.

Mercury has powerful effects in removing obstructions, and should the preceding means fail, then the pill No. 22 may be taken with advantage, every night or other night, or No. 91 in the Modern Domestic Medicine. Dr. A. T. Thompson remarks, (*Cyclop. of Pract. Medicine*, *vol.* ii. *p.* 13,) "The administration of a pill, containing one grain of calomel, the same quantity of powder of digitalis, and three of extract of conium, at bed-time, followed in the morning by half an ounce of wine of aloes and myrrh, in conjunction with the mineral alkalies and ammonia, for two or three days previous to the expected return of the menstrual discharge, have, in our hands, proved generally successful."

3. Where this development is interrupted by a chronic affection of some other part, the condition is readily detected by the presence of any such disease, as is capable of interrupting this discharge, after it has been thoroughly established; such as consumption, chronic inflammation of the liver or spleen, severe mesenteric disease, &c. Under the existence of either of these diseases, the menses will necessarily be suspended, because it will immediately interrupt the development of the organs, essential to the formation of the menstrual discharge, however favorably this expansion may have commenced.

This case often painfully exposes the medical attendant to the importunities of the friends of the patient, for something "to bring down the menses," but it should be particularly

noticed, that to be useful here, we must remove the disease which opposes the development necessary to the appearance of the discharge: if we cannot do this, we cannot effect the other.

4. The *fourth* condition is easily known, by the girl having all the outward signs of womanhood; this discharge being all that is wanting to complete her form, and fit her for the duties she is destined to fill.

This case is to be treated in the same way as the second condition, previously noticed (p. 61); but it will often admit, if requisite, of still more active remedies than are there prescribed, such as the essential oil of savine, iodine, or even the ergot of rye. In the majority of instances, we may confidently trust to the plans of diet and exercise, with the use of cantharides, or the steel and aloes pills, before recommended; and where the case resists the employment of these measures, ten or twenty drops, or more, of the tincture of iodine, or of the solution of hydriodate of potash, No. 18, may be taken twice or thrice a day, four or five grains of the *pill: aloes cum myrrh:* being given every night, so as to keep the bowels regular. This treatment is particularly indicated where any glandular enlargements exist, either in the neck or mesentery. Iron and iodine combined, as in the prescription No. 27, is likewise often a valuable medicine in such instances.

In all cases where medical interference is called for, friction over the loins and stomach with the flesh brush, or the soap liniment, and change to a new and bracing air, are advisable. The tepid bath, at 94 degrees, or from that to 98 degrees, is also often useful. The air and waters of Tunbridge are well adapted to this class of complaints; and most patients will be comforted and benefited by wearing flannel drawers in the autumn and winter.

Local means of relief have been recommended, and very strongly so by some physicians. In certain cases they are likely to prove beneficial, as where the patient possesses considerable strength, and blood flows pretty freely in her veins, and then, an injection of ten drops of *liquor ammoniæ*, in an ounce of milk, may be thrown up the passage once or twice in the twenty-four hours. Electricity also may be tried in obstinate cases.

Although I have mentioned under the *third condition*, pre-

viously specified, that consumption is a disease which sometimes opposes the full development of the female organs, yet it is certain that, in many cases, the cough, pain in the chest, and other symptoms of consumption present, are really owing to the obstructed menses, and are merely one among the many train of symptoms so frequently attendant on this complaint. In cases of this kind, steel is particularly eligible in the day, and small doses of Dover's powder at night. Ammonia made into an emulsion with oil, is very useful in relieving the cough, and change of air should be had recourse to, when practicable.

There is, however, one circumstance connected with the treatment of these cases, which we must not overlook—namely, the possible occurrence of a regular secretion of the menses, without there being any exit for them, the passage being closed by some mechanical obstruction, as of the neck of the womb, an imperforate hymen, or an obliteration of the vagina, from some original malformation, or an attack of inflammation. In these cases, we find symptoms of menstruation existing at the regular periods, and also a gradual enlargement of the abdomen, owing to the fluid collected in the uterus. Indeed, cases have occurred where the abdominal enlargement has been so great, as to raise unjust suspicions in respect to the condition of the female. A manual examination readily detects this impediment, and a simple surgical operation will commonly as easily remove it. An interesting case of this kind may be seen in *Johnson's Medico-Chirurgical Journal, No.* 37, *p.* 190, (extracted from the *Provincial Medical and Surgical Transactions, vol.* i.), recorded by Mr. Coley, Surgeon, Bridgenorth. The subject of the case was a young lady, aged sixteen, who had suffered for three days and nights from retention of urine: on examination, an imperforated state of parts was found, entirely preventing the discharge of the menstrual fluid. The womb was considerably enlarged, and from the lower part of the abdomen having increased in bulk, during the two preceding years, the patient appeared to be in a state of pregnancy. On the removal of the imperforation, nearly four pints of tar-like fluid gushed out—evidently a secretion that had been for months pent up in the uterus. The patient speedily recovered.

Although this operation is commonly equally simple and successful, yet it is not invariably so, and the practitioner

ought to be on his guard, both as to what may be required in the operation, and what may happen afterwards. A case has been reported from the Lowestoft Dispensary, by Mr. W. C. Worthington, in which the patient, a girl of fourteen years of age, "of a precocious appearance," died four days after the operation, from acute inflammation of the *peritonæum*, and Professor Langenbec (*Bibliotheck, vol.* iv. *pt.* 3) relates a similar case, in which death took place the fifth day after the operation. He attributes the tendency to inflammation to the long retention of the menses, and, therefore, advises the operation never to be delayed, when the true nature of the complaint is discovered.

We may properly remark here, that there are certain females who never menstruate, as well as others who do not menstruate till a very late period. In addition to the case referred to, p. 61, I have now under my directions a young woman between twenty and thirty, who has never menstruated, and have seen other similar instances. Mons. Lisfranc, an able French physician of the present day, says he has had occasion, within a period of ten years, to notice fourteen cases of this kind. The influence exercised by this state on the constitution, varies according to the individual.* Some of these patients, at each return of their monthly period, became extremely sensitive, and irritable; they experienced uneasiness and a sense of weight in the lower part of the abdomen, with rheumatic and other pains, but without the least discharge. Now and then females are met with, who arrive at an advanced age without experiencing periodic indisposition, but these are commonly women of bad health, whose complexion is unhealthy, and who are much troubled with indigestion, palpitation of the heart, head-ache, &c.

The proper management of these cases may, in a measure, be gathered from what has already been said in this article; and it is certain that some of them will be found, notwithstanding their long continuance, to be owing to congestion of the womb, imperfect development of the ovarian system, malfor-

* Under *Suppression of the Menses*, I have noticed the fact, that menstruation is not absolutely necessary to good health, nor to impregnation, for cases have been met with of women becoming pregnant, and bringing healthy children into the world, who never menstruated, either previously or subsequently.

mation of the passage, or some similar cause, quite within the control of art, but which, nevertheless, has not yet been remedied, probably either from the real cause not having been discovered, or the proper treatment not having been employed. A case in which the real cause of the obstruction appears to have remained undiscovered nearly seven years, occurred in the hospital practice of M. Delpech, in Paris, in the beginning of the year 1830. This case shews us that the menses may be retained, not only by an imperforate vagina, but also by an imperforation situated higher up, and affecting the *os uteri*, or mouth of the womb; it seems likewise to favor the opinion, that in cases of retained catamenia, a mechanical obstruction in the vagina or *os uteri* would be oftener found, if more frequently looked for. The case may be thus briefly stated:—

Margaret G——, aged twenty-two, was brought by her parents to M. Delpech, much emaciated, extremely feeble, and complaining of thirst and fever. In the *hypogastric* region was a rounded moveable tumour, painful to the touch, and rising to about the level of the navel; it created most uneasiness at the monthly periods, when it seemed to increase in volume, and hysterical fits came on; its pressure on the bladder frequently impeded the flow of urine. On making the necessary examination with the finger, a projection was felt, which was clearly a portion of the tumour, and it was also distinguished by the finger in the rectum; at the bottom of the vagina, as well as in the *hypogastrium*, fluctuation could be felt, but no trace of the neck or mouth of the womb existed. *The patient had never menstruated.* When young she had enjoyed good health, and even possessed considerable muscular strength. The preceding symptoms had been coming on for the last six years, and on two occasions she had been attacked with violent pain in the belly, attended with serious fever.

M. Delpech had no doubt of the tumour being produced by retention of the menses in the uterus, and by an increased growth of that organ. After trying various means, without success, this surgeon determined to open into the uterus and evacuate its contents. This was done by means of a long and large curved trocar—on its being withdrawn, a pint and a half of brown, inodorous, and oily looking matter was discharged, when the hypogastric tumour was quickly reduced to half its former size. The same matter continued to flow slowly for some time, but had ceased by the fourth day after the operation. A moderate mucous secretion followed, the volume of the tumour still further decreased, and although much induration remained, there was no irregularity to be discovered. On the twentieth day after the performance of the operation the menses appeared, and lasted for six days. In another month the menses flowed again, and the womb was now no larger than it commonly is three months after child-birth.

M. Delpech is of opinion, that in the obstruction of the mouth of the womb from inflammation, (since it is more difficult in this case to keep the opening pervious, than in that of congenital imperforation,) it is best to use a speculum, and make a crucial opening with a bistoury—the edges of the opening should be removed with the same instrument, in order that there may be a loss of substance, instead of a simple puncture, which is all that is necessary in the congenital imperforation.

A case of deficiency of the vagina, which occurred in a patient of Mr. Perkins, at the Bristol Infirmary, may be found in *Howship's Observations in Surgery*, (1816,) *p.* 361. The patient was sixteen years of age, and had for twelve months been subject to the most violent pains in her bowels and back, frequently occasioning the strongest convulsions. She had been treated for months with no advantage, and was perfectly cured by an operation. A similar case in a woman aged thirty-two, and treated with similar success by an operation, may be seen in the *Edinburgh Medical and Surgical Journal, for April*, 1834, *p.* 405.

An imperforate state of the *os uteri*, or mouth of the womb, is a rare cause of retained menses, but it is sufficient that it is sometimes a cause, to lead us to be on our guard in this particular, lest we should overlook it, whereby our patient might suffer very materially for a long time. Should this state of the *os uteri* be detected, the passing a silver probe through the imperforation, and afterwards a bougie, gradually enlarging it, will sometimes succeed in relieving the patient, without our being called upon to use any cutting instrument. Two cases of retained catamenia, successfully treated in this way, may be seen in *Mackintosh's Practice of Physic*, *vol.* ii. *p.* 343, *third edit.*

Of the management of curable examples, I have already treated; but it is a natural inquiry, what is to be done in those where the derangement is of many years standing, and proceeding from causes not controllable by art? The answer is, the patient must be treated in the way most likely to tranquillize the nervous system, to improve the secretions, and to amend the general health, which we must attempt by the skilful use of the lancet, cupping glasses, or leeches, thus drawing

three, four, or five ounces of blood occasionally, about the time when the system, by the presence of unusual pain and irritation, shows that it is suffering under an oppression which such an evacuation is likely to relieve. The loss of blood is not equally well borne by all patients in this condition, and therefore both as it respects the quantity drawn, and the frequency of repetition, much thought and discrimination will be required on the part of the practitioner. To this means may advantageously be added, the use of the warm bath, a carefully regulated diet and regimen, mild aperients, and alteratives, as the pill No. 22. The sarsaparilla will be useful in some cases, and the extract of hemlock is often of great service.

OF SUPPRESSION OF THE MENSES.

However well established the menstrual evacuation may be, it is liable, from a variety of causes, independently of pregnancy and suckling, to be interrupted.

The first notice the patient usually has is the non-appearance at the subsequent period for her customary evacuation; she for the most part neither suffers pain or other inconvenience, until the menses may have failed in their return for several periods; then she may experience the approach of ill health, when she properly becomes an object of medical care. She may now become pale, emaciated, and be much enfeebled; a train of nervous symptoms may be superadded, such as palpitation of the heart, difficulty of breathing, a sense of suffocation, especially after any thing has hurried the circulation. She may also be attacked by *fluor albus*, which quickly aggravates all the previous unpleasant symptoms. In some cases, symptoms of deranged general health are clearly developed from the beginning, and in most instances, the patient first declines a little in her health, though she may not sensibly experience the approach of ill health till several weeks afterwards.

This may properly be called *chronic* suppression.

Acute suppression generally arises from some cause acting immediately previous to, or during the discharge; as from the sudden application of cold, anxiety of mind, fright, &c. Then the patient is frequently attacked with violent pain in the head, back, or bowels, and considerable fever, and this with

such force, as to give great alarm for her safety. Temporary derangement, violent hysterics, and severe colic, have resulted from this cause.

The most usual remote *cause* of acute suppression of the menses, is cold, or exposure to wet. Great anxiety of mind, and sudden fright, will likewise produce it. The real cause of the chronic suppression, which comes on more slowly, is deranged general health, which may be induced by constipation, improper diet, or a general mode of living unfavorable to health. Of course mental anxiety will sometimes act slowly and imperceptibly, as well as more directly and sensibly. Living in a low damp atmosphere may occasion it.

The possibility of pregnancy should be kept in view, as the cause of the suppression; and this we might have remarked under *Green-sickness*, is applicable even to that form, for a previous menstruation is not absolutely necessary to conception, but only that condition of the uterus and ovaria, which is directly preparatory to menstruation. Sir Everard Home has ralated a case, in which the menses occurred for the first time in life, after the birth of more than one child, the second pregnancy taking place during suckling. We are indebted to Professor Frank for a still more striking instance, of a patient who bore three children successively, and never menstruated at all, either previously or subsequently.

Treatment. In the *acute* suppression, coming on suddenly, immediate relief is called for, and the patient should instantly put her feet and legs into warm water for a quarter of an hour, then go into a warm bed, and drink freely of warm barley water, into a pint of which may be put a drachm of antimonial wine. She should directly take an active purgative, as four grains of the compound extract of colocynth, and one grain of calomel, made into a pill, and swallowed with a draught, No. 6. After this has operated once or twice freely, she may take, with advantage, a little Dover's powder, especially if it is near bed time, or she suffers much pain—five grains may be made into a pill with extract of henbane; and this may be repeated in four or five hours, if the pain, or uneasiness of the patient renders it necessary.

Should pain in the region of the womb be severe, fomentations of a decoction of warm poppy heads will be proper, and

an injection, composed of three table-spoonsful of thin starch, a tea-spoonful of laudanum, with or without thirty grains of finely powdered camphor. If the patient is very hysterical, two tea-spoonsful of the tincture of assafœtida may be added instead of the camphor.

These means will generally be effectual in restoring the discharge; but if the pains in the head and back are severe, with much throbbing of the temples, a full pulse, and a robust habit, the abstraction of ten or sixteen ounces of blood from the arm is called for. In ordinary cases, I do not think the abstraction of blood, at least from the arm, in the first instance is warranted, since the other means are commonly effectual in re-establishing the natural discharge, which relieves the constitution much more than an artificial one, which artificial discharge, indeed, if resorted to in the first instance, might prevent the re-appearance of the menses. The application of a dozen leeches to the groins might be very advisable, and would rather induce the menstrual evacuation, than retard it.

In the *chronic* suppression, the remedies will vary according to the state of the system; and attention to this point is of great consequence, as success in the treatment of this complaint almost exclusively depends upon this discrimination. There may be in many cases prominent symptoms of debility, and in some there is real and considerable weakness present; but when the suppression is of recent date, that is, not more than three or four months standing, we generally find, that so far from the pulse betraying marks of debility, it manifests a tendency to an excess of action. Here we must commence the treatment by such remedies and regimen as will reduce the pulse to a proper standard, before we commence with the exhibition of such medicines as shall have a direct tendency to produce the monthly discharge. We may, therefore, order eight or twelve ounces of blood to be drawn from the arm, the purgative No. 6 to be taken directly, while the patient is confined to a vegetable diet. In a few days the feverish symptoms will be reduced by these means, when we may prescribe twenty or thirty drops of *the tincture of cantharides* three times a day, in barley water, or linseed tea. This is a very valuable remedy, especially when the "whites" are an attendant; but if, after trying it for two, three, or four weeks, it does not

succeed, *the madder* may be given, or *the volatile tincture of guaiacum.* The madder, in doses of half a drachm, or a drachm, thrice a day, is a simple and safe remedy, and has been highly praised both by British and American physicians of reputation; but the volatile tincture of guaiacum is probably a much more efficient medicine, and may be taken in doses of half a tea-spoonful, or a tea-spoonful, thrice daily, in a large wine-glass-ful of new milk, or milk and water. This medicine has been very useful in cases of long standing. It is much more stimulating than the cantharides, and appears to require even more attention than that medicine, that the system be properly prepared for its reception, as above directed. Should it act too much on the bowels, three or four drops of laudanum may be added to the dose occasionally; if, on the contrary, the bowels are confined, a little powdered jalap or rhubarb may be conjoined with it.*

* The following cases, illustrative of this mode of treatment, and its success, are instructive, and may prove useful to my readers.

"Miss ——, after having stood a long time on a damp brick paved cellar on a hot day, and at the warm employment of 'preserving,' found herself chilly, and her menses arrested: her mother had her feet put into warm water, and gave her some hot pennyroyal tea to drink, which removed the chilliness, but did not restore the discharge. She was occasionally taking of remedies without effect until some time after the third month; at this time she became more indisposed, and we were requested to visit her. We found her labouring under severe head-ache, which was much increased by sitting up, or motion; her pulse full, and a little quickened; her tongue slightly furred; her appetite impaired, and her bowels costive. We directed her to lose twelve ounces of blood; to be freely purged by senna; and to confine herself to rennet whey, barley water, or thin tapioca for nourishment." She recovered after a short time.

"Miss ——, after an arrest of her menses for four months, desired our advice, as her health of late had begun to suffer considerably. She was pale and emaciated; had some *fluor albus;* head-ache; loss of appetite; and was readily agitated by slight causes. There was much palpitation of heart, especially on going up stairs; her pulse was tense and hurried; skin hot; and tongue furred considerably, especially in the morning. We ordered her to lose ten ounces of blood; to be purged by senna, and to be confined to a vegetable diet. She was relieved by these remedies, but as her pulse was not entirely subdued, we thought it best to keep the bowels loose, and to confine her still to a vegetable diet. This plan, strictly persisted in for about ten days, redueed her pulse sufficiently to bear the tincture of cantharides, in doses of thirty-five drops thrice a day; in a few days more the flour albus stopped, and in a few more the menses made their appearance. Upon these two cases we shall merely remark, that had we given any *emmenagogue,* or forcing medicine, in the commencement of our attendance, we should not have had the pleasure of seeing our patient so quickly restored."—*Dewees' Midwifery, p.* 142.

The preceding treatment is more particularly applicable to those cases of suppression which are idiopathic, or which instead of being occasioned by ill-health, are rather the cause of ill-health. Those suppressions occasioned by previous deranged general health will require a different treatment, the blood-letting, purging, and low diet, not being called for, but on the contrary, invigorating remedies being clearly indicated, and often of much service, if judiciously prescribed. Here the bowels must be regulated by the *pil: aloes cum myrrhâ*, and one drachm of the powder of sarsaparilla may be taken twice or thrice a day, in cinnamon or dill water; or the pills p. 47 may be taken instead, if preferred. After three or four weeks, if the patient does not appear to advance satisfactorily, steel may be tried, as in the pills No. 23, or the muriated tincture of iron may be administered: or the pill of steel, aloes, and mastic, prescribed at p. 63, may be given twice a day. This pill I think superior to any other form of steel. In these cases, small quantities of blue pill, or calomel in conjunction with antimony, are often very useful. The diet should be mild and invigorating, and the other part of the treatment as recommended for *Green-sickness.*

Analogous to suppression may be considered the very sparing quantity of the menstrual discharge in young women in the prime of life. This is found in two conditions, viz. when, after it has continued some time, the health seems to be implicated pretty much after the same manner as if a decided suppression were present, for it has very much the same accompanying symptoms; and when this happens, this complaint, for the most part, seems to yield to the same remedies as for obstruction, especially the tincture of cantharides: in the second state, it is, at least in a number of instances, an habitual condition of the *uterus;* and, though the quantity discharged is sometimes extremely small, yet all the natural or prolific powers of the female system seem to be preserved; for we have in several cases known pregnancy to follow. All the known usual remedies have often been prescribed for these cases, without effecting any change in the quantity discharged; yet after marriage they become mothers. It is therefore best, in the majority of such cases, not to interfere, unless evidence is given of the presence of ill-health.

It is true that all who appear to be in good health are not fruitful in marriage, but this may not be their fault; or if resting with them, may be owing to a deranged condition of the *ovaria.*

It is clear that the cases of deficient menstruation, in which the health appears to suffer, in a greater or less degree, are those of the most easy management. In this treatment, regard must be paid to the condition of the vascular system, which may be illustrated by referring to a case by no means uncommon—a female, during the monthly period, is exposed to sudden fright, or overwhelming loss, and the menses are immediately suspended, and continue so for several months, during which time she suffers much from a train of untoward nervous symptoms: at length there may be a slight show, and that repeated at the end of another month, and so on for two or three periods more, but her health does not improve, and medical advice is sought. The physician finds her in this state of general nervous debility, with head-ache and hot skin towards evening, costive bowels, and a considerable flow of the whites; he orders her to lose ten ounces of blood, to be moderately purged, kept upon a milk and vegetable diet, and to take the cantharides in proper doses—the next month or two, she has an ample discharge, and departs cured.

OF PROFUSE MENSTRUATION.

Menorrhagia, or profuse menstruation, is a disorder not unfrequently found in very opposite conditions of the system, and therefore presenting somewhat different indications of treatment in different cases. For example, it may arise where there is too great a fulness of habit, and too irritable a state of the vessels of the uterus; or, where both general and local debility are present.

There is a great variety in the uterine constitution of women, and consequently there is a corresponding variety in the performance of its functions. Hence one woman will lose twice or thrice as much of the menstrual fluid as another, without suffering from this apparent excess. Therefore, as it respects this discharge, excess must often be regarded as a relative term; and we can consistently consider it excessive only by

observing that it has injurious effects upon the general health of the individual. Should it be very considerable, and yet not appear to entail debility, we have no right to call the discharge immoderate, or excessive; for then it is only so as compared with some others who may evacuate less, yet being in no better health. It is therefore evident that so long as it does not impair the constitution, it should not be interfered with, and more especially if it be not inimical to impregnation. The quantity lost upon an average is about five or six ounces.

Not only does the quantity of this discharge, vary in different women in the same climate, but there is likewise a great difference in the time required for the completion of each period of menstruation. In some women the discharge returns precisely to a day, or an hour, while in others there is a variation of several days, without inconvenience. In some it is finished in a few hours, and in others it continues from one to ten days; but the intermediate time from three to six days, is most usual.

It was formerly considered a question rather difficult to be satisfactorily answered, whether this discharge arises from a mere rupture of vessels, or is owing to a secretory or excretory action? But this is now no longer considered a question in any degree difficult of solution, it being universally regarded by professional persons as the result of a secretory action of the vessels of the part, as much so as milk or any other secretion. The secretory organ is chiefly composed of the arterial vessels situated in the *fundus* or body of the uterus; which has been proved by the dissection of women, who have died during the time of their menstruating.* In its nature this discharge differs very much from pure blood, but in what this difference consists

* During pregnancy and lactation, when the person is in good health, the *catamenia*, (for so is this discharge sometimes called,) for the most part, cease to flow. Should a woman menstruate during pregnancy (a very rare occurrence,) the discharge probably takes place from the arterial vessels of the vagina, and from the neck of the womb, the mouth of the womb being closed at a very early period of pregnancy, and thereby precluding the possibility of the escape of a fluid from the body of the organ. As a proof how small a space is, under certain circumstances, sufficient for the purpose, it has been proved by an examination after death, that the uterus of a young woman who had menstruated quite regularly and properly to the time of her death, retained only a surface healthy enough to perform the menstrual function, *of the size of the finger nail*, all the rest of the interior being in a state of disease.

it is not easy to say: it never coagulates; at least this is its proper character, and when *coagula*, or clots, are found among the discharge, we regard it as a decisive proof of the escape of pure blood, and call it, in a minor degree, a hæmorrhage. With respect to the use of this monthly secretion, I would not say that it renders the womb fit for the conception and nutrition of the child, but rather that it is the consequence of a peculiar periodical condition of the blood-vessels of the organ, fitting it for impregnation, which condition is analogous to that of "heat" in the inferior animals.

But I must proceed to treat of the *symptoms*, *causes*, and *treatment* of profuse menstruation.

This complaint, in whatever way induced, is almost always attended with pain in the back and loins, and often with a feeling of weight or bearing down, and a sensation of fulness and heat; but these symptoms are usually much more marked in *the first variety* of these complaints than in the second, that is, where there exists fulness of habit and an unimpaired constitution. In this variety, the pulse is often quick and full, the tongue dry, and thirst prevails, with head-ache and sometimes giddiness. Here the discharge usually comes on with violence, in gushes, and it may be accompanied with coagula; afterwards, in many cases, the patient feels relieved, lighter and cooler, and she recovers her usual health; but in the more aggravated cases, the discharge is protracted for several days, till she is left weak and exhausted, with a corresponding pulse and countenance. By the time of a return of the menstrual period, the woman is perhaps nearly restored to her previous state of health; but the same train of circumstances being again and again renewed, the complaint gathers strength, the number of days intervening between the periods rapidly diminish, till at length scarcely one period is passed before the next approaches.

The repeated recurrence of such attacks as these seldom fail to break down a strong constitution, engendering great feebleness, and thus *menorrhagia*, which was in the beginning of an acute character, may soon assume the appearances of a passive or indolent nature. This disorder is, however, not unfrequently of a passive character from the very commencement, the patient being on its first appearance in a debilitated state, with feeble pulse, cold extremities, weak stomach, and perhaps

a considerable swelling of the ankles towards night. This forms *the second variety* of *menorrhagia.* Notwithstanding these marks of debility, the patient is often found subject to palpitations of the heart, head-ache with throbbing and beating in the temples, singing in the ears, and occasional flushings of the face, symptoms which seem to denote activity and fulness of the vessels, but which here really arise from a want of tone in them, as well as in the general system. This fact is worthy of particular attention, because these seeming appearances of unusual fulness and activity of the blood-vessels have often unhappily led medical practitioners to an immediate abstraction of blood, and the use of other lowering measures, to the great and sensible injury of the patient.

In long-standing cases of this malady, the complexion becomes sallow and cadaverous; the breathing short and difficult; the pulse quick and feeble, and dropsical symptoms manifest themselves, more especially in the extremities. Very often the patient is much afflicted in the interval with *leucorrhœa* or whites.

At the time of writing these sheets, I have under my directions a lady who suffers most severely from a form of *menorrhagia*, by no means uncommon, in which the patient has both a disordered and impeded circulation through the abdominal veins, owing to either functional or organic disorder of the intestines or liver. She likewise suffers frequently and very greatly from piles, by which such patients are often much distressed. In these cases, the womb offers a ready outlet for the relief of the over-distended blood-vessels of the lower part of the body; and this is a form of the complaint which must be carefully noticed.

This disease may arise from *causes* existing chiefly in the system at large, as in plethoric habits, where the patient lives luxuriously, does not take sufficient exercise, and indulges in warm rooms; or from causes affecting principally or solely the womb and its appendages, as from too frequent child-birth, miscarriages, blows on the abdomen, or any other local violence. Frequently constitutional and local causes combine to produce the complaint. In the first variety of it, there may be fulness of habit conjoined with local fulness, and uncommon irritability of the uterine system; in the second variety, there often

is general debility, and an unusually relaxed state of the muscular and vascular structure of the womb. In any case should much functional or organic affection of the abdominal viscera be present, especially of the liver and intestines, the symptoms will generally be much aggravated. Married women are more liable to the complaint than virgins.

Menorrhagia may be owing to organic mischief, or to a polypus or prolapsus of the uterus, when the real nature of the case can be ascertained only by a proper examination. *See Polypus of the Womb, and also Prolapsus.*

Treatment. The management during the attack must depend, as we have before hinted, on the state of the constitution, and the effect of the discharge. *In the first variety*, where the symptoms are those of too great fulness, oppression of the chest, together with heat and thirst, the diminishing the action of the heart and arteries, and the regulation of the other constitutional symptoms, will usually remove it. We must, therefore, prohibit the use of animal food, and prescribe a very mild and spare diet for several days, and obtain a regular daily action of the bowels, by the use of the mild saline aperients as No. 5 or 6. At the same time the free application of cold to the belly, loins and back, will materially assist in checking the discharge: folded cloths, dipped in equal parts of vinegar and cold water, are to be applied, and frequently renewed, and cold water should be injected into the vagina. The application of ice is often of great service; a small piece wrapped in the corner of a muslin handkerchief, introduced into the vagina, and retained there, has been known to succeed most completely.

If the incursion of the disease is very sudden and violent, the complaint recent, and the habit of the patient robust, it may be advisable to order a bleeding from the arm, to the extent of twelve or sixteen ounces; but this should not be adopted unless under the circumstances just noticed. The application of leeches to the lower part of the belly will generally be preferable, and it is a little remarkable, that sometimes no sooner are they applied, than the bleeding from the womb ceases.

Together with the use of a very spare diet, saline aperients, and the topical application of cold, we must, in severe cases, likewise have recourse to an internal astringent, and by far

the most valuable of this class of medicines is the acetate of lead, the *plumbi acetas*. Several other medicines are useful as astringents here, but when we can point to one that is safe, near at hand, and of great efficacy, it is better than a thousand, and I shall, therefore, not mention another. Eighteen grains of the acetate of lead, and three grains of powdered opium, must be mixed together, and, by means of crumb of bread, divided into twelve pills; one of which may be taken every one, two, or three hours, according to the urgency of the symptoms. This medicine is a very active one, and consequently should not be taken beyond the point of actual necessity. What is said on the subject of *diminishing the quantity of blood discharging under Final Cessation of the Menses*, is applicable here.

In the *second variety* of this disorder, where debility is clearly marked in the constitution, we are called upon to try invigorating means, both locally and generally; therefore, cold and astringent solutions* must be injected into the vagina thrice a day, and the patient may begin with No. 12, and afterwards use No. 14, which is stronger. Cold hip bathing (see page 48) is likewise indicated, with change of air, and an invigorating diet. The diet should consist of articles the most easy of digestion, and a little good sherry or port wine may be allowed in all cases, where it sets easy on the stomach, and does not prove heating. Females subject to complaints of the *uterus*, are very much affected by any shaking exercise, as in an uneasy carriage, or on horseback, and such exercises must consequently be avoided. Gentle walking exercise almost always does good, and friction with the flesh brush, especially over the loins and lower limbs, is found soothing and beneficial.

In these enfeebled cases of *menorrhagia*, the best internal medicines are, zinc, steel, quinine, and sarsaparilla, combined with rhubarb, and extract of hop, hemlock or henbane, as in the pills No. 20, 23, or 29. Ammonia is also a valuable remedy, as in the recipe No. 5A, at the end of this volume.

Where there is a vibrating feel of the pulse, steel will seldom agree, but the quinine often will, and so will the sarsaparilla,

* Now and then a case occurs where the opposite means succeed, where every cold application has failed, and throwing up *tepid* water has put a stop to this disease—this is worthy of being borne in mind.

given in infusion of serpentaria or calumba, with eight drops of liquor of ammonia to the dose. Together with the tonic in the day, the alterative pill No. 22 may be advantageously given every night.

Should the discharge continue, notwithstanding the employment of these means, and especially if it continues so as evidently to exhaust the patient, a small dose of the acetate of lead with opium must be given occasionally, in order to keep it in check.

If symptoms are present indicating great functional or organic disorder of the intestines or liver, the sarsaparilla, dandelion, quinine, and the alterative pill No. 22, or that marked No. 91 in my *Domestic Medicine*, will be the most appropriate and efficacious medicine,—the bowels being kept regular by a tea-spoonful or two of Epsom salts taken every morning in water.

In *menorrhagia* of the atonic character, complicated with obstinate eruptions on the skin, Dr. Locock recommends the arsenical solution, but it is a remedy which no patient should ever take, excepting under the directions of a professional person. He says, (*Cyclop. of Pract. Medicine, part* xiv. *p.* 107), "It has been given in doses of five or ten drops of the *liquor arsenicalis*, gradually increased to twenty-five or thirty, three times a day, carefully watching the effect of the medicine, and diminishing the dose, or discontinuing it altogether, when the peculiar deleterious qualities have been," (or, we would rather direct, are likely to be) "evinced."

One of the worst cases of profuse menstruation is, where there is a great local weakness of the vessels, which cannot be acted upon through the medium of the constitution, and where the ordinary local means of relief have been tried in vain. In these cases, the most likely thing to succeed, is to throw up an injection *into the womb itself:* which is to be done by carefully passing up a gum elastic male catheter into the womb, we must then withdraw the wire from the tube, and inserting the point of a small syringe, gently throw up a very small quantity of a solution of alum, or of the acetate of lead, into the cavity of the organ. As soon as it produces pain in the back, the operator must desist, because a very little of the solution will be enough. Usually, if there are thirty drops in the womb it

will be sufficient. In the very worst cases of the disease, this resource has succeeded, but it requires a good judgment to determine where and when it is proper, for it is certainly not among the safest of the means which we have recommended.

Opium is of great value in severe *menorrhagia*, on account of its soothing qualities, and it may therefore be always resorted to with advantage, when the system is much reduced by the loss of blood. In some cases of such hæmorrhage from the womb as we now treat of, in which great irritability and exhaustion are present, opium alone will check the discharge, and may restore the patient better than any other remedy whatsoever. Dr. Mackintosh has the following excellent remarks on this point in his *Practice of Physic*, *vol.* ii. *p.* 363, *third edit.* "Opium is almost indispensable when the system is very much reduced by hæmorrhage, from whatever part of the body the blood may have issued; it allays that peculiar irritability and restlessness,—prevents irregular determinations of blood, which are always most dangerous in this state of the system, and to which there is a strong tendency,—and lastly, produces quiet refreshing sleep. When the system is fairly brought under the influence of the drug, the strength is no longer exhausted by continued efforts to vomit, and by unceasing tossings of the body from side to side; it sends the whole system to sleep, if I may be allowed the liberty of using such an expression, and enables it to live on a smaller scale of vitality, which in the mean time is enlarged by the judicious and frequent introduction of small quantities of food into the stomach to recruit the strength."

There is still one remedy in profuse menstruation and passive hæmorrhage from the uterus of great and very superior efficacy, viz: the supertartrate of potash—cream of tartar—which may be taken in doses of a drachm twice a day, in water. The value of this admirable medicine is but little known in such cases; it will, however, be soon ascertained on trial, for where it is suitable, it is equally prompt and successful in its effect. In fact, all *the neutral salts** are here of uncommon service, because they work specific changes on the blood, and thus the patients feel themselves sensibly and speedily benefited by them; but the cream of tartar bears away the palm of effi-

* If mixed with dark coloured, venous blood, they instantly change it to a bright arterial colour.

cacy. It is to passive hæmorrhages that it is best adapted. A friend of mine, Dr. Silvester, of Clapham,—a very learned and skilful physician—lately met with a case of *menorrhagia* which proved the great value of this medicine in a most striking manner. The subject of the case, a lady about 40, had suffered severely from hæmorrhage from the uterus for many months;—almost all the usual means known had been perseveringly tried in vain, including the plug, which, by the bye, was an absurd expedient in such a passive bleeding. The physician quickly discovered the nature of the case on being introduced to the lady, and felt confident he could cure her. On enquiring of the attendant medical man what he thought of the prognosis of the case, he promptly answered—she'll die, sir, there's no hope—we have tried all kinds of remedies in vain. My friend replied—that she will die is certain, but not now, for I believe she will recover. He prescribed the cream of tartar; and the patient had not taken it twenty-four hours before she felt the most sensible improvement in her general feelings, as well as in the abatement of the discharge. She perfectly recovered, and they had no more trouble about it.

The fact is, that this case of *menorrhagia* was the consequence of *a diseased condition of the blood* of the patient, which being corrected by the neutral salt administered, she speedily and permanently recovered. Physicians now pay too little regard to the unhealthy state of the blood as a cause of disease. It is fashionable to refer every disorder to a derangement of the solid parts of the frame, and particularly to derangement of the nerves, or nervous influence, and of the mucous membranes; indeed, although the Divine Creator of man did ages since expressly declare to us, in the Sacred Volume of Divine Inspiration, that "*the life of the flesh is in the blood*," man has always, with a few honourable exceptions, thought he knew better than God, and has positively denied the fact! And this has been done for ages, in the very face of many well-known proofs that all the solids of the body are formed from the blood, and that this is the active and living stimulus that communicates to the heart and vessels that permanent impression, which is, in reality, the true cause of their incessant action! Is not this a melancholy proof of man's pride, conceit, self-sufficiency, and self-dependence? From the beginning he has

been occupied in searching into the works of God, studying, often with but little good result, their laws and operations; too frequently blundering on in darkness, and when successful in his search, scarcely advancing beyond those who have gone before him, although with increased advantages and after the most laborious efforts;—notwithstanding, when his CREATOR condescends to reveal to him a great truth, and to counsel him by his unerring wisdom, he refuses to believe! Another example of this we have in the conduct of the pseudo-philosophers of our British Association, who have impugned the correctness of the date of the creation revealed in the Bible. Some of these persons are certainly exquisitely learned; they study every thing but themselves; taking a wide range of investigation through both the earth and skies, they forget that the highest and most profitable study of mankind is man:—in fact, they know almost every thing except their own littleness and the greatness of God,—and thus overlook altogether a class of truths of the highest importance and which alone are permanently worth knowing.

The state of the blood, in its influence on health, is a very interesting and important subject, and one in which all persons are concerned. I am therefore desirous to avail myself of this opportunity of introducing a few facts, proving how easily and certainly the blood is vitiated by various noxious agents, thereby producing disease in the solids; and how entirely the integrity of all the most important animal functions are dependant on the circulation of this vital fluid in a healthy state.

Injurious impressions made on the sentient extremities of the nerves will often doubtless produce disease, but this is not, I think, so frequently the real cause of diseases as most medical men now imagine. In my opinion, the majority of fevers, of all climates, originate from *an infected or diseased state of the blood*, and from this cause also originate scrophula, gout, cutaneous disorders, and passive hæmorrhages, besides other maladies. I believe with Dr. W. Stevens (to whom we are much indebted for many excellent remarks and facts on the present subject,—some of which will be found in the following observations) it is the blood that forms and first stimulates the heart into action; this, therefore, may be justly considered as the *primum mobile*. I believe that the voluntary muscles derive

their vitality from the blood, but that electric fluid which stimulates *them* into action, is evidently the effect of the nervous system. The nerves, however, are not essential either to the vitality of a part, or to the formation of the solids. Fœtuses have been born without either a brain or spinal marrow, yet, in every other respect, they were fully formed; and in those limbs that are completely paralytic, the blood is converted from arterial to venous, and evolves heat nearly as fast as in those parts of the body where the nervous communication is not interrupted. The limb loses its sensibility, for the nerves now are not capable either of receiving or communicating impressions to the brain, but still it continues to live. In process of time the muscles become less plump—this, however, is the effect of the want of action; but the motionless limb, so long as it is nourished by the blood, continues to live, until life ceases in the whole system.

The following facts, which prove how very speedily various substances pass into the blood, and thus influence the whole system, will be read with great interest.

When a warm-blooded animal is bled to death, the heart almost immediately ceases to contract, from the want of animal stimulus to keep up its action; but when we cut off the head of another animal of the same class, secure the vessels in the neck, and keep up an artificial respiration, so as to purify the blood, the heart retains its vitality, and continues to act with force, even for many hours. The blood continues to circulate, and the solids not only retain their vitality, but the muscles continue to act with great power, even for a long period after the head of the animal has been fairly separated from the body. That such is the fact is evident from many well-known experiments lately made in this country. We have seen, also, that when the structure of the brain is completely destroyed, and the chest of a rabbit is opened immediately, so as to expose the blood in the large vessels, &c., to the action of the air, the auricle continues to live, to feel, and to re-act on the blood for three hours, even after the brain has been converted to a perfect pulp. Now, from this alone we may infer, that the solids are not indebted to the brain for their living principle; for if the nerves, either of themselves, or from their connection with the brain, be the cause of animal vitality, why is it that the

solids instantly die when deprived of their blood, and that too even when the brain and the nerves are left uninjured? On the other hand, that the solids derive their life from the blood is evident from the fact, that the heart and the other vascular organs, as well as the muscles, &c. continue to act so long as they are supplied with pure blood, and retain their vitality for many hours after the brain of the animal has been reduced to a perfect pulp, or even after the head is removed from the body;—consequently we may infer, that the blood in its healthy state possesses life, and that the solids themselves can only live and retain their vitality so long as they are supplied with the living fluid, and when this is withdrawn, death must immediately follow in the heart, the brain, in the nerves and whole body, "for the life of the flesh is in the blood," and without this, they instantly become mere inanimate matter.

There are certain noxious agents that are almost inert, so long as they are merely applied to the sentient extremities of the nerves. The poison of the rattle-snake, for instance, is perfectly harmless when applied to the eye, the tongue, &c.: it may even be taken into the stomach, with the most perfect impunity. It has been given internally, in large doses, to foxes, monkeys, dogs, and other animals; but still it produced no apparent effect. Yet when a small quantity of the same fluid is introduced into a recent wound, or injected into a vein, it causes death in a few minutes.

When we examine the part immediately after death, we find that the poison has completely destroyed the red colour of the blood, and not only of this, but for two inches all round the puncture, the muscular fibres, and even the cellular substance are as black as if they had been for hours in a state of complete mortification. The blood in the veins which lead from the wound is likewise black, and even that which is taken from the heart is darker in colour, and does not coagulate so firmly as in those animals that are killed by a blow on the head. When we examine the head, after death, there is a want of blood in the brain, similar to that which occurs in those persons who die during the cold stage of fever; but neither the brain nor any of the solids appear to have sustained the slightest injury, ex-

cept at the wound, and this, of itself, is not sufficient to account for the suddeness of the death. But the blood is diseased even in appearance; and my belief is, that this poison, like most of the others, produces death, not by the direct impression on the brain, but by suddenly depriving the blood of its vital principle; for the solids cannot continue to live when that dies which is, in truth, the cause of their vitality.

Fatal as this poison is when mixed with the blood, yet when we cut out the black flesh from the poisoned wound, and give it to a dog, or any other carnivorous animal, he eats it readily, and takes it into his stomach with the most perfect impunity. Or, if we saturate a piece of bread with the poison, he eats it, without suffering in the slightest degree.* Nor is it any chemical mixture between the blood and the poison which causes death; for the fluid has been mixed with recent blood, and dogs ate it readily without being poisoned. It is, therefore, only fatal, when it mixes with the living blood, in a living animal, and causes death, as I believe, by destroying the vitality, first of the blood, and then of the whole body; for the fluid does not act as a poison when applied to the sentient extremities of the nerves, and the mere organic injury which is done to the solids is not of itself sufficient to account for the sudden death.

The rapidity with which some substances pass through the circulation into the distant secretions, affords a certain proof that these agents enter almost immediately into the blood. Madder, indigo and rhubarb, may be detected in the secretion of the kidneys, in fifteen minutes from the time that they were swallowed; gallic acid, in twenty-five, the colouring matter of cherries, and the astringent principle of uva ursi, in forty-five.

* That most noxious poison—the juice of the Wouralli vine—acts only on the blood. It has been given internally, in large doses, to dogs, monkeys, and other inferior animals, yet they did not suffer, even in the least; but when we dip a small wooden needle into this poisonous juice, and then puncture with this either the flesh or any other part of the body that contains blood, almost the very moment that the poison mixes with the living blood, it destroys its vitality in the part to which it is applied; and, if the communication with the rest of the current be not immediately prevented, this loss of vitality in one part of the blood, almost instantly extends to the whole, and the animal dies, generally in less than fifteen minutes.

Turpentine, when rubbed on the skin, appears in the urine in twenty-five minutes; but when inspired, at the same time, it was found in the secretion of the kidneys in fifteen. It is also a fact, that the prussiate of potash gives a blue colour to the valves of the heart. When even water, in excess, is taken into the system, or more than is necessary for the process of digestion, the excess is immediately taken up by the roots of the vena portæ, and thrown out of the circulation, in cold countries by the kidneys, and in hot climates by the skin.*

We do not hesitate to assert that many foreign agents chemically combine with the blood and alter its qualities, as completely as they change the qualities of water or any other fluid. But whether they be chemically combined with the blood or not, if they are dissolved and diffused in the circulating current, they must change its physical properties and give it new qualities. It is then altered, it is no longer healthy, and this deranged blood is often the cause of disease, and, in some cases, of organic lesion in particular organs; while in others, as in fever, this deranged state of the blood produces diseased action in every fibre of the solids, and causes a deranged state in every one of those secretions that are derived from organs that are now supplied with diseased blood; consequently, when this is deranged, the solids cannot properly perform their functions, and the secreted fluids cannot be healthy.†

* When Sir Everard Home injected an infusion of colchicum into the vein of a dog, it produced inflammation in the intestines sooner than if it had been given by the mouth. When a solution of tartarized antimony is taken internally, from the time that elapses before it commences to act, it is probable that it produces no effect whatever on the stomach, until it first enters the circulation, and then returns to the gastric organs, through the medium of the circulating current. This is the more probable, from the fact that even when the nerves of the stomach are completely divided, and then when tartar emetic is injected into a vein, it produces irritation in the stomach and vomiting much quicker than when taken directly into that organ. Gamboge and scammony, when injected into a vein, are thrown out by the intestines, and produce their purgative effects, as completely as if they had been taken directly into the gastric organs. In all these examples, it is probable that these, as well as many other agents, are perfectly inert until they first mix with, and give new properties to the blood. They are then thrown out of the circulation into the various cavities, the emetics into the stomach, the purgatives into the intestines, the diuretics by the kidneys, &c.

† *See Dr. W. Stevens on the Blood, p.* 159.

OF PAINFUL, OR DIFFICULT MENSTRUATION.

This complaint is important from its frequency, and the great suffering it sometimes occasions, as well as from its occasional obstinacy, and the obstacles it presents to impregnation. In most cases of difficult or painful menstruation, (technically called *dysmenorrhœa,)* the secretion is scanty throughout the period, or particularly during the first two days, when the pain is often extremely severe, and in some cases so much so, that the patient rolls on the bed or floor in agony, or has been thrown into convulsions. If the discharge comes freely after the first day, then the pain often ceases; but now and then a free discharge and great pain co-exist. The pain affects the back, loins, and lower part of the belly; and is in many cases attended with an aching sensation down the legs, and a bearing down in the *pelvis.*

In the *acute* stage, sickness and vomiting are frequently present, from the stomach sympathizing with the affected uterus.

There are two states of this affection, viz. one, where the mammæ sympathize with the uterus, and become tumid, and oftentimes extremely painful; another, where there is no such affection induced. Of these two conditions, that accompanied with painful breasts appears to be the more easily managed.

Occasionally a membranous substance is expelled by women who suffer from *dysmenorrhœa*, which may be triangular, corresponding to the shape of the cavity of the womb, the inner surface of the membrane being smooth, and containing a fluid. Chaussier, a French practitioner, mentions a case where this membrane presented itself at the orifice of the womb, and was pulled away entire with the fingers: it was as large as a fig, and filled with a bloody fluid. This membrane is of the nature of coagulable lymph exuded from the lining of the womb, the result perhaps of *chronic* inflammation. It has been mistaken for a miscarriage, but is seen as often in single as married women: a knowledge of its nature may be of great consequence to the character of individuals.

This complaint arises at different periods, in different women: sometimes the first attack immediately follows marriage, frequently it exists from the commencement of menstruation, and

continues till marriage, if the proper means have not been employed for its removal; and in other cases it is induced, at various ages, by deranged general health. It is not true, as some have asserted, that no woman can become pregnant while *dysmenorrhœa* continues; but such women are much less likely to conceive, and when they do, are unusually liable to miscarry at an early period of pregnancy.

This complaint is found chiefly in those who possess great physical susceptibility, and whose general health is deranged. The effects of impaired digestion distress the woman in the intervals between the monthly periods; and in improving the general health of the patient, although no medicines are employed, as by a thorough and sufficient change of air, agreeable society, active exercise, and bathing, the *dysmenorrhœa* is invariably much benefited, and sometimes wholly removed. These facts prove how closely connected *dysmenorrhœa* is with deranged general health, and I believe it is rare to meet with it where many symptoms of impaired health, or disordered secretions, have not previously existed.

Undoubtedly there exists in all instances extreme irritability of the womb, and where the peculiar membrane, above alluded to, is expelled, *chronic* inflammatory action is commonly present.

Treatment. *During the attack*, we are called upon to relieve the pain and irritation under which the patient suffers, for which purpose five grains of Dover's powder, and five of camphor, may be rubbed together, and, by means of conserve of roses, divided into two pills, to be taken directly, after which, or while they are preparing, the patient should go into a tepid hip-bath (at 97 degrees,) and from thence to bed. She may drink freely of any warm diluent that is agreeable and useful, as tea, coffee, or weak gin and water (hot). The pills of Dover's powder and camphor may be repeated in three or four hours, or sooner, and to a third or fourth time, if the symptoms are extreme; but the patient ought not to repeat them, if they can be dispensed with. Some physicians say they have found nothing to relieve the pain so quickly and certainly as camphor, and the following prescription is considered a good one—

Take of camphor, two scruples, and, by means of a few drops of spirit of wine, reduce it to powder; then add of powder of gum arabic,

one drachm; simple syrup, two drachms; cinnamon water, two ounces. Mix them, take one fourth directly, and repeat it in an hour, if relief be not obtained.

The camphor may, however, be given in powder, in doses of ten grains, simply suspended in syrup, and repeated every hour or two. Sometimes the stomach is so deranged as to bear nothing upon it, when an injection, composed of a scruple of powdered camphor, half a drachm or a drachm of laudanum, and three ounces of thin starch, may be thrown up into the uterus.

If the bowels are constipated, it is of consequence that an active aperient, as the draught No. 6, followed by a purgative clyster, No. 32, should be given directly, and prior to the use of the Dover's powder pills.

In those cases of *dysmenorrhœa* where the patient is of a full florid habit, and the pulse full and frequent, the abstraction of blood by cupping on the loins, or leeches to the groins, is often advisable; but, generally speaking, no blood should be drawn in the complaint.

But the treatment *during the intervals* is by far the most important. This complaint has been looked upon by some professional men as often almost an *opprobrium* to medical science; thus Dr. Mason Good says, "The disease, moreover, is peculiarly obstinate, and in some instances has defied the best exertions of medical science, and has only yielded to time, and the natural cessation of the discharge." But this is what I have never witnessed, nor do I believe it to be true, the real cause of the frequent failure in the cure of this complaint being probably an overlooking of its real sources, and a disregard of the proper indications of treatment. Now and then, indeed, it may be owing to organic disease in the womb, and then the complaint may be incurable, but this is a rare cause of *dysmenorrhœa*. Dr. Campbell says, *(in his System of Midwifery, p.* 431, 1833) "This complaint is as difficult of removal as any in the whole catalogue of female diseases," and if in its treatment we are confined to the inferior means which he enumerates in the same book, perhaps it would be; but, although his publication is in many respects very valuable, it appears to me that the most efficient means of relief and cure for this disease are omitted by him, which tends to confirm my opinion, that it

is often intractable, either because the most effectual means are not advised, or because the advice is not fully complied with.

The indications to be fulfilled in the management of this disorder are—to improve the secretions, and amend the general health.* If we can accomplish these objects, the patient will gradually improve in comfortable feeling, spirits, and strength, and the womb will, for the most part, take care of itself. To fulfil these indications, we recommend great attention to a nutritious diet of food of easy digestion, free exercise daily in the open air, and if possible change of air; the regulation of the bowels by some mild medicine, as the lenitive electuary, or No. 9 or No. 19, and observing a laxative diet; an alterative soothing pill every night, as No. 22 here, or No. 91 in the DOMESTIC MEDICINE; and some medicine twice in the day, calculated to strengthen the digestive functions, and to aid the night pill in improving the secretion from the skin, and other important surfaces. In this respect I have found the sarsaparilla of great service: one drachm of the powder may be taken twice or thrice a day in cinnamon water, or decoction of sarsaparilla, or three tea-spoonsful of Moxon's compound essence; or the following pills may be taken—

Take of compound extract of sarsaparilla, two drachms and a half; extract of dandelion, half a drachm. Mix them together, divide into thirty-six pills, and take three, four, five, or more, thrice a day.

Patients very frequently neglect to take sarsaparilla in sufficient quantities. One drachm of the powder or of the extract taken in a quarter of a pint of the decoction, twice or thrice a day, is not too much.

The tepid hip-bath daily, at about 85 or 90 degrees, should never be neglected in this disorder:—it may be used in the morning at twelve o'clock, and a walk taken after it. Horse exercise is likewise a remedy of superior efficacy in this complaint.

The zinc pills No. 29 are valuable, and so are the steel pills No. 23, either of which may be tried, if the sarsaparilla does not benefit the patient. Dr. Chapman, of Philadelphia, con-

* Some such patients may say, I am not aware I am out of health, neither my spirits, appetite, or strength are materially impaired, &c., but patients are not proper judges of such matters, and the physician often detects great derangement where the patient will not acknowledge any to exist.

fidently recommends four ounces of the *decoction of senega* to be taken daily in divided doses, especially in those cases where a membranous substance has been habitually expelled.

Guaiacum, however, I believe to be a much more valuable remedy in most cases of this disorder. Dr. Dewees, of Philadelphia, and Dr. Locock, recommend it strongly, and so did the late Dr. Gooch. It may be taken in the form of volatile tincture; from twenty to forty drops in milk and water, being the proper dose, thrice a day; or fifteen or twenty grains of the powder may be taken, thrice a day, in mucilage of gum arabic. In many cases, a combination of sarsaparilla and guaiacum will be found very efficacious.

Perseverance for two or three months in the use of the volatile tincture of guaiacum is often necessary, and before it is commenced, reference should be made to the directions for preparatory treatment, especially in robust patients, or inflammatory constitutions, given under the head of SUPPRESSION of the menses. Cases of the same disease are continually found varying in many particulars, and it is from this circumstance that so much attention and judgment are required on the part of the medical practitioner; I would therefore remark, that sometimes the combination of guaiacum and hemlock will here be found more efficacious than the former medicine alone, and this obtains more especially when severe and frequent pain is endured.

In all cases, I would urge upon the patient the regular and active use of *friction* with the soap liniment, over the loins and lower part of the belly, night and morning.

Iodine must not be forgotten as a remedy in this complaint. It has specific effects in many uterine affections, and exerts great power over the painful symptoms.

For a week prior to the expected attack of pain, the tepid hip-bath (at 90 degrees) must be used every night, for half an hour, and the state of the bowels claim especial attention.

It has been previously remarked that this disease is unfavorable to child-bearing, but this does not appear to be owing to any influence it may exert upon the *ovaria*, but to the imperfect condition of the decidua—there being foundation for the belief, that *ova* have often been impregnated, but not finding the womb in a condition to receive them, have perished. The

same surface furnishes both the menstrual secretion, and the efflorescence called the decidua; and it seems thence to follow, that if it performs the first of these offices imperfectly, it will likewise the latter, and consequently the ovum would perish for want of a proper nidus.

This opinion seems strengthened by the fact, that so soon as this wrong action is changed, the woman is instantly capable of being impregnated. By the influence of the treatment we have recommended, a temporary change is induced in the secreting vessels of the womb, and the formation of a morbid membrane is prevented. Cases might be brought forward to illustrate these sentiments, and prove their correctness; we shall, however, confine ourselves to the following striking instance: (from Dr. Dewees)—A lady applied for advice who had always suffered at her monthly periods; who at such times always discharged a number of membranous portions; and who had been married nineteen years, without ever having shown any symptoms of conception. After due preparation, for she was very plethoric, she was put upon the use of the volatile tincture of guaiacum, in which she persevered for three months. The first period after she commenced the use of the medicine, was one of prodigious severity, so much so, as to make her resolve to abandon its use. She was, however, persuaded to persevere, and the reward was great; the next period was better, the following one was without pain, she conceived immediately after, and in due time was delivered of a fine girl. She took twenty-four ounces of the tincture.

A new remedy has recently been proposed for painful and difficult menstruation, which it is much more easy to recommend to the patient than to prevail upon her to try—it is, the passing of a common small bougie up the passage, through the mouth of the womb, into the cavity of that organ, beginning with a very small bougie and gradually increasing the size. This has been advised by a Scotch physician, under the conviction that a mechanical cause of this complaint exists in the small size of the *os uteri*, or mouth of the womb. "By this condition of the *os uteri*, (he says,) not only are all the phenomena which take place in *dysmenorrhœa* most satisfactorily accounted for, but also the intractable nature of the disease.

The menstrual discharge, after it is secreted in the uterus, cannot readily escape in consequence of the small size of its orifice; distension of the organ is the consequence, which, by exciting the contraction of its fibres, produces uneasiness and pain in the pelvic region." *Mackintosh's Pract. of Physic, vol.* ii. *p.* 351. He says he has treated twenty cases by means of the bougie alone, and has "permanently cured eighteen of the patients. Of these, eight were either young unmarried women or living in a state of widowhood; ten were married, and living with their husbands. Of these ten, seven subsequently fell with child."

On this statement I would remark, that this is one among the multiplied proofs daily presented to us, that the world is full of prepossession and prejudice; and who can calculate their evil effects? This obtains almost as much in the professional, as in the political world, and in private life. Men are far too seldom occupied in the pursuit of the real truth,—too feebly actuated by an earnest desire of pursuing the best course and accomplishing the greatest good, regardless of self; but a creature *of their own* possesses extraordinary attractions, and no time, nor strength, is too great to be devoted to it. A proof of the correctness of this remark in the present case is, that Dr. Mackintosh thinks it quite sufficient to give a lengthy detail of the mode of using this *unique* remedy, and its effects, without so much as mentioning any other!—if we except a slight notice of palliatives. Is there not a great deal in such modes of proceeding to support the opinion before advanced, that the intractable nature of this malady is assumed, and has no foundation in fact? Nevertheless, I think the use of the bougie might possibly aid us very much in some cases of this disease, and therefore it is not proper to pass it by in this volume altogether without notice.*

* Now and then we meet with a case of *vicarious menstruation*, in which the menses are transferred to, and excreted at remote organs. This shows the extensive sympathy which the sexual organs maintain with every other part of the system. As an example, I may refer to a singular case recorded in the *Edinburgh Medical Essays*, in which the catamenia were thrown forth from an ulcer in the ankle of a young woman little more than twenty years of age, and which continued to flow at monthly periods, for two or three days at a time, for about five years: after which, some part of the bone having separated in a

OF THE FINAL CESSATION OF THE MENSES.

The nearer a woman approaches her forty-sixth year, all other things being equal, the greater will be the probability of some irregularity in the menses; and as this period is more frequently the one at which any latent disease of the uterus shews itself, it is always looked forward to with much anxiety by the female.* Indeed, so replete is this period with horrors to some, that we may very justly suspect it to be the cause of many of the distressing symptoms which sometimes accompany this interesting process of the human uterus.

The reason of this discharge leaving the woman at this time of life, appears to be founded in Divine wisdom and beneficence; child-bearing being thereby prevented beyond that period, at which the mother would be capable of extending her care to her offspring, in the ordinary probabilities of human life; and thus consequently submit her child to the doubtful management of strangers, or subject it to the waywardness and caprice of those who could not feel a parent's affection, or would not yield a mother's devotion to its many necessities and wants, at a period at which its helplessness would most require the kindest offices.

This change is sometimes so silently effected that the woman scarcely takes notice of her altered condition; at others, its approach is so gradual as not to attract observation, until the diminished quantity gives warning it is about to take its leave for ever.

For many ages opinions have been entertained that the final cause of this evacuation is an outlet for peccant humours, and

carious state, the ulcer assuming a more healthy appearance, and the body becoming plumper and stronger, the vicarious outlet was no longer needed, and the menstrual evacuation returned to its proper channel.

In whatever part of the body the vicarious discharge may appear, it should make no difference in the treatment.

* Instances have occurred of the final cessation of this discharge so early as the thirty-fifth year, or even sooner, in our climate, and of their duration to the sixtieth year; but these are very uncommon. Dr. Dewees, of Philadelphia, has seen three instances where this evacuation has ceased altogether before the twenty-fifth year, and two others before the thirtieth year: the health of these women appeared to be as perfect as if they had this discharge in the most regular manner.

thence the apprehensions of women probably arise; for wherever this discharge is less abundant than usual, the most serious fears are entertained lest its retention should excite disease, either in the uterus itself, or in some other part of the body; hence a diminished menstruous secretion is always more alarming to the female, than an unusual flow.

"The time of life," as it is usually called, is without doubt an important epoch, and care and attention are then particularly called for, but the vulgar error, that women at this period are always in danger, is not without mischief to the suffering sex; for it is doubtful whether they are necessarily more obnoxious to disease, at least to severe disease, at this than at any other period of their existence.* That they are occasionally liable to disease at this time, and that disease one of the most terrible of human maladies, cannot be concealed, we mean cancer of the womb, but this disease is much more rare in the uterus than in certain other parts of the body, for example, the breasts; and perhaps we are within proper limit when we say, that there are three instances of the latter to one of the former. If latent dispositions in the uterus and other parts to disease, become active about this period of life, it is not because the menses, being ubout to cease, excites them, but because the disease is slow in developing itself, and is kept perhaps in check for a long time by the menstrual discharge serving as an important evacuation,

* The distinguished and experienced Denman used to say, "All women are alarmed at the time of the final cessation of the menses, and are persuaded that the ill consequences which sometimes ensue, are to be prevented by proper care and management at the time. But it must be observed, that scarce one of a great number of women suffer more than temporary inconvenience on that account; and it is not reasonable to think, that any disease should be a necessary consequence of the cessation of a discharge, which is as perfectly natural as its appearance or continuance."—*Practice of Midwifery, 7th edition, p.* 115.

M. Lisfranc, a Parisian practitioner of the present day, of considerable reputation, observes on this point, "We are not to believe, with most writers on this subject, that affections of the uterus are more common at this period than at any other. The great law of physiology, that the more an organ is exercised, the more liable it is to morbid affections, here holds good as elsewhere. From thirty to thirty-five years of age, the re-productive organs are most exercised, and observation shews, that diseases are more common between those two periods. There are a great number of women affected with diseases of the uterus in the hospital of *La Pitie*, and amongst those so attacked I do not remark more than three who have reached the age of forty."—*Lectures on the Disease of Women in the Lancet, vol.* i, 1833-34, *p.* 322.

especially when the uterus may be the seat of the complaint. In such a case, the foundation of the disease was laid, or it originated, at a time the menses were the most perfect, as regards period and quantity; consequently, they could have no agency in its production; but, on the contrary, from its frequently relieving the engorgement of the vessels, kept it in subjection for a long time. Coincidences in the human system are so common, that they are frequently mistaken for cause and effect, the cessation of the menses, and the appearance of scirrhus and cancer, or other maladies, being regarded as cause and effect.

Our present concern, however, is with the derangement of the discharge at or about the period of cessation: this will consist either in a diminution of the usual quantity, or in the excess of it. With respect to the first little need be said, as it is what is expected; but the excessive flow must be treated, for the most part, according to the rules prescribed for the management of hæmorrhage from the uterus from any other cause; the indications being,—to diminish the quantity discharging, and to prevent an excessive return.

To diminish the quantity of blood discharging. The first of these indications is best fulfilled by rest; cool air and drinks; cold local applications; and by the daily use of a little of the mixture No. 37:—and if these means fail, there may be added—the pill of acetate of lead and opium, No. 21; and the plug. The patient so circumstanced must be immediately confined to a horizontal position, and every motion should be strictly forbidden; cool air must be admitted with freedom wherever practicable, and no nourishment nor drinks should be given, except they be cooled. Cold applications to the belly are frequently useful in excessive discharges of this kind; the best mode of applying them is by large bladders not quite filled with water, in which there is ice, if it be in summer, or during hot weather; cold water alone will be sufficient if in winter. During the use of this, care should be taken to keep the feet and legs warm. We may also give one of the pills No. 21, and repeat it in an hour, or less, and continue it afterwards, if the circumstances call for it. In urgent cases, the acetate of lead pills not being at hand, the ordinary mixture of sulphuric acid, alum, and infusion of roses, may be taken, or *Ruspini's styptic.* Should these means not control the discharge

after a proper trial of them, recourse must be had to the plug,—a soft handkerchief may be folded, dipped in vinegar and water, and inserted quite up the passage. The insertion of a small piece of ice in the first fold of the handkerchief, is attended with great advantage, and has often a powerful effect. The plug should never be allowed to remain longer than ten or twelve hours at a time, without being removed, cleansed, and re-inserted.

The discharge of blood at this period of life, is occasionally so great and rapid as to threaten speedy exhaustion, and then it can be met only by the most prompt application of the most efficient remedies. Whether this malady shews itself in the rapid expenditure of fluid blood, or in the repeated expulsion of large coagula, it must be opposed by the same remedies—these two conditions present no difference of indication, nor any essential difference in the complaint itself; the former, however, generally requires more prompt interference than the latter, as more blood is expended in a given time.

To prevent an excessive return of this discharge. This second indication must be fulfilled by cautious blood-letting; saline purgatives; alteratives; hemlock, and tonics. In those cases where there is an immense loss of blood at this period of life, there is an almost continual draining off of this fluid, after the violence of its issue is much abated; hence we sometimes find a greater or less discharge almost always present, which renders the woman not only very feeble, but keeps her mind in a state of extreme apprehension from one period to the other. These two causes,—the excessive discharge, and mental anxiety,—keep the system in a constant state of excitement; and if the pulse be examined, it will frequently be found quick and tense. We are, therefore, (unless the patient is constitutionally delicate and debilitated,) under the frequent necessity of abstracting a few ounces of blood during the interval of each period, especially towards that time which the disease has assumed for its movements—say, in about every three or four weeks.

To aid the vessels to contract, we should confine the patient to a strictly vegetable diet, or to a diet of milk, if this agrees with her; all kinds of liquor and spices should be forbidden, and exercise absolutely prohibited. The patient should sleep upon a mattress, and should be directed to repose herself upon it, or

a sofa, as often as she may feel a little weakened or fatigued by sitting up. The feet and legs should, however, be kept warm, and the whole body rubbed thrice daily.

It is of great importance that the bowels should be kept freely open, by the regular exhibition of some mild purgative, as No. 5, 9, or 19, or, what is still better, No. 37. Aloes is generally considered to be a bad medicine in these cases, but the *hiera picra*, (it is a mixture of aloes and white canella bark,) long the old woman's remedy, has certainly been serviceable. The following case may be given as worthy of some notice.—A lady, aged forty-two years, for whom almost all the known remedies for this hæmorrhage had been prescribed, with very little benefit, was told by some old woman that the hiera picra was a certain cure in her complaint; as this woman cited the cases of two or three ladies known to the patient, who had been benefited by it, and who, on application being made to them, strongly recommended it, she was allowed to make use of the old woman's prescription. This was half an ounce of the hiera picra to a pint of gin, of which a wine-glassful was to be taken at bed-time; it was taken, and the lady was completely intoxicated all night, and very sick next morning. Thinking the effects would be next night less severe, she again ventured on it with a similar result. She was now determined to abandon it, unless some less objectional mode could be adopted for its exhibition—it was therefore prescribed in the following manner:

> Take of hiera picra, two drachms; oil of cloves, ten drops; Castile soap, twelve grains; syrup of rhubarb, a sufficient quantity to form the mass—to be divided into forty pills.

One of these was prescribed every morning, noon, and evening, unless they should prove too purgative; which did not occur, as the patient was of an extremely costive habit. She soon perceived, after she began the use of this medicine, a diminution of the discharge, and by the time she had finished the pills ordered above, it was so much reduced in quantity, as to give no farther uneasiness. This, and a few other cases of a similar kind, prove the importance of gentle purging in this complaint, especially by the neutral salts—see page 82.

The extract of conium (hemlock) is often a useful medicine in this disorder, especially where the discharge is chiefly by coagula. It may be given in pills, in the dose of from three to

six grains, or more, twice or thrice a day, and is serviceable in allaying irritability, and relieving pain. I think the addition of a small quantity of blue pill, and tartarized antimony, to the hemlock, (as in the form No. 22), will often be more serviceable than the latter given alone, especially where there exists symptoms of great functional disorder in the liver or bowels.

When the condition of the patient is very much improved by these means, and debility remains, we may venture cautiously on a more generous diet, gentle exercise daily in the open air, and a little of the mildest kind of tonic, as infusion of cascarilla, gentian or calumba.

But what we have previously said refers only to the severe forms of this complaint; and we will now add a few words as to the management of the more ordinary cases. Commonly little or nothing is required beyond attention to keep the bowels regular, by means of the saline aperient No. 37, or *beaume de vie*, or one of the mild aperients No. 9 or 19, taking every, or every other night No. 22, or Plummer's pill; or the *alterative pill* No. 91, in the DOMESTIC MEDICINE, sometimes answers remarkably well. Together with these means, the exercises must be attended to, and the diet should be nourishing, but rather less in quantity than usual. The condition of the blood demands particular attention in the severer cases. See pages 82 to 87.

When a great many days are employed in giving issue to the discharge, or, as the women term it, being almost constantly unwell, yet where the aggregate quantity may not greatly exceed the common monthly evacuation, some tonic and a mild alterative are indicated, also bathing the parts in cold water, abstaining from much exercise, especially in the house, and from all stimulating food. Two drachms of the tincture of rhatany, and one drachm of Epsom salt, thrice a day, in a wine-glassful of water, is very useful; or the infusion of cascarilla, as in No. 16, may be advantageously taken. In conjunction with these measures, a single pill of the acetate of lead, No. 21, or one pill taken now and then is likely to be of great service, particularly if the discharge appears disposed to increase in quantity.

Many women at the period of the final cessation of the menses, although they do not suffer from a profuse discharge or hæmorrhage, yet are much troubled with rheumatic or flying

pains, head-ache, hot flushes, and other troublesome symptoms. It is too common for such persons to go on a long time unrelieved, and to be told that these feelings being necessarily produced by their state, there is little to be done but to bear them patiently. This, however, is a mistake, for I have found an alterative pill at night, similar to Plummer's pill, or No. 91 in the DOMESTIC MEDICINE, with sarsaparilla and rhubarb in the day, to be almost a sovereign remedy, provided the patient is careful of her diet, and attentive to the bowels and to exercise. In prescribing an alterative pill in these cases, we should vary the combination according to circumstances, sometimes giving only half a grain of calomel, or less, in each pill, and sometimes adding to it a little Dover's powder, whereby its soothing effects are promoted. The kind of combination, and the doses, will of course make a great difference in the effects in different cases.

OF ITCHING OF THE EXTERNAL PARTS,

TECHNICALLY CALLED PRURITUS.

This is frequently a troublesome and distressing complaint in females, the itching often extending up the passage *(vagina)*, and sometimes being so severe as to confine the patient to her chamber. A lady has been known to be thus confined for three months. It is frequently troublesome to pregnant women, but those who are not in this state are liable to it.

It may be difficult sometimes to detect the *causes* of this complaint, as it is often found in persons observing great cleanliness and strict temperance; but in all cases there is a secretion of some acrid fluid, and I believe it very commonly has its foundation in a deranged condition of the general health. In some instances, this itching has intervals of longer or shorter duration; and its return seems to be produced by a discharge taking place of a thin and generally limpid serum, of which the patient is quite conscious; and aware at the same moment, that her troubles are about to be renewed.

An efflorescence of the nature of thrush (aphthous) is almost always an attendant.

The most effectual remedy for this complaint is a strong solution of borax in water, as one drachm to three or four ounces of water, with which all the parts must be washed four

or five times a day, and the fluid also thrown up the vagina by means of a syringe. It is material that the fluid should be thrown up the vagina. This application usually cures the patient speedily.

When the parts are examined, very superficial ulcers will sometimes be found, and then a pencil of lunar caustic drawn across them will give instant and complete relief.

If it proves at all obstinate, the loss of a little blood and a low diet will very much add to the influence of the borax.

The *balsam copaiva* is likewise a good medicine, when the disorder does not yield to the use of the preceding means.

In a case of great violence and equal obstinacy, where it did not yield to depletion, to low diet, nor the borax, instant relief was obtained by an injection of a small tea-spoonful of the *aqua ammonia pura* to a half pint of water. This injection was had recourse to in the middle of the night by the patient, while under great agony from the violence and pertinacity of the itching; and which she considered rather as a desperate experiment than as a probable means of relief; yet it succeeded like a charm.

Now and then a case of severe itching may be seen as the consequence of disease in the *rectum*. I lately attended a most severe case of this description; the lady had stricture and organic disease of the rectum, which had produced obstinate *pruritus*, and she had been rolling about her bed for days and nights with very little and temporary relief. A multitude of applications were employed with little effect; she was at length relieved by taking the solution of oxymuriate of mercury internally, which as soon as it slightly affected the gums permanently benefited her.

Since the preceding period, I have cured a very severe case of this affection in a lady about 45, by means of the carbonate of iron. A multitude of remedies had been previously tried in vain. She was perfectly cured in eight weeks.

OF DISEASES OF THE OVARIA.

The *ovaria* are two small flat oval or oblong bodies, suspended in the broad ligaments, about the distance of one inch from the womb behind. They are generally considered to be ovaria

in the literal acceptation of the term, (diminutive of *ovum*, an egg,) and to include a number of vesicles, or ova, sometimes to the amount of twenty-two of different sizes, joined to the internal surface of the ovaria by cellular threads. They contain a thin lymphous fluid, and are found in the healthy ovaria of every young woman. They prepare whatever the female supplies towards the formation of the *fœtus*, which is proved by the operation of spaying, or the extirpation of the ovaria, after which the animal loses both the power of conceiving, and all desire.

Remarkable well-known changes are produced in the intellectual and physical constitution of women, at the age of puberty, by the *developement* of the ovaria. Indeed, so pre-eminently important are healthy ovaria to the manifestations of womanhood, that the womb may be wholly wanting, and even the orifice of the vagina closed by a thick firm substance, and yet all the signs of puberty and health be present, provided the ovaria are entire; while, on the contrary, so intimately connected is the condition of the latter organs with the growth of the external parts of the female, that if they are wanting, or not sufficiently developed, the marks of puberty will not be exhibited, although the womb, vagina, and the other organs may be perfect. A case proving in a striking manner the truth of this statement, (extracted from *Dr. Macfarlane's Clinical Report of the Surgical Practice of the Glasgow Infirmary,)* may be seen in *Johnson's Medico-Chirurg. Journal, No.* 36, *p.* 449.

The ovaria may be wholly wanting, or wanting on one side only. When they are wholly wanting, the attendant phenomena, as may be expected, are very remarkable. Mr. Charles Pears published in the *Trans. of the Royal Society of London for* 1805, an account of a young woman who died at the age of twenty-nine, in whom the ovaria were wanting, and the following are some of the appearances which the case presented; "Having ceased to grow at ten years of age, she was in stature not more than four feet six inches high. The breadth across the shoulder was as much as fourteen inches, but her pelvis measured only nine inches from the *ossa illia* to the *sacrum*. Her breasts and nipples never enlarged more than in the male subject. She never menstruated; there were no indications of puberty in mind or body at twenty-nine years of age."

The celebrated surgeon Mr. Pott extirpated the ovaria in a young woman, during an operation for a rupture, and menstruation immediately ceased, the voice became hoarse, the breasts shrunk, and hair appeared on the chin and upper-lip. Prior to this period, this female was stout, large breasted, and menstruated regularly. *Pott's Works, vol.* ii. *p.* 210.

The principal diseases to which the ovaria are subject are, 1. *Inflammation terminating in suppuration;* 2. *Scrophulous, Scirrhous, or Cancerous affection;* and 3. *Dropsy.* We shall treat of each of these maladies.

1. OF INFLAMMATION OF THE OVARIA.

This occurs chiefly immediately after delivery, and often the usual symptoms indicating inflammation are very severe. There is severe pain, especially on pressure, in *the groins*, and *sides of the lower part of the belly*, in *the region of the ovaria*, with quick pulse, general feverishness, &c.

The *treatment* consists in blood-letting, more particularly by means of leeches, gentle purging, fomentations, and the other means recommended for *Peritonœal Inflammation.*

2. OF SCROPHULOUS AND SCIRRHOUS DISEASES OF THE OVARY.

These present very various appearances in different cases. Some affect chiefly their fibrous envelope, others the substance of the organ, and others involve every part of its structure. When congestion is considerable in the organ, it sometimes acquires an enormous size in a very short space of time, and we then observe a tumour situated above the *pubis*, and at one side of the belly. The ovary in some cases contains a cheesy substance, or it may become hard and stony. Sometimes it is affected with a spongy disease, and is changed into a substance like brain.*

* Sometimes a chronic or slow inflammation, terminating in the formation of matter, attacks one ovarium, or both. Such a case was seen in the autumn of 1823, in Guy's Hospital, in the person of a very unfortunate female, aged seventeen, under the care of Dr. Bright. Her symptoms were great emaciation, a very quick and feeble pulse, a shining red tongue, constant watchfulness, irresistible diarrhœa, and frequent vomiting, both of food and medicine. After two months' residence in the hospital, she suddenly complained of excruciating pain over the belly, and expired in a few hours. On opening the body after death, a

These diseased enlargements of the *ovaria* are by no means uncommon; indeed, they have of late years become frequent, and are certainly one of the diseased affections which, at least as it respects their multiplication and severity, have arisen out of the present artificial habits of the people. In the practice of one physician,* for example, above forty cases have been witnessed in the course of fifteen years, and in fourteen of the cases which did not terminate successfully, two of the patients were under thirty years of age; four were from thirty to forty; five from forty to fifty; and three above fifty. In four of these cases, the tumour was confined to the right ovary; in seven, to the left; and in three both were implicated. In one the *ovarium* was distended into a large cyst, filled with fluid, and without any apparent solid growth, and was, of course, mistaken during life for dropsy of the belly; in nine, chronic enlargement existed, in combination with one or more cysts containing fluid; and the remaining four were solid throughout.

The TREATMENT consists in improving the general health of the patient in every possible way, by means of pure air, gentle exercise, digestible food, and the use of sarsaparilla, hemlock, henbane, and sometimes a little blue pill, as in the pill No. 22. We must, however, be cautious in giving mercury. Iodine, cautiously and skilfully administered, may sometimes be very useful, and the same may be said of *liquor potassæ*, or *Brandish's alkaline solution.* Procuring a discharge from the surface of the belly, by means of the tartar emetic ointment, or blisters, is worthy of notice: and gentle but persevering friction with the camphor or soap liniment may be tried with advantage.

I have much confidence in the skilful use of iodine in some

large quantity of *matter* was found effused into the cavity of the belly, which had escaped from an abscess in the right *ovarium*, which abscess arose from suppuration in the substance of the organ, apparently the consequence of ordinary chronic inflammation, as it was unconnected with any cyst, or diseased growth whatever.

Dr. Taylor, of Philadelphia, met with a case which was considered to be the ordinary dropsy of the ovarium. The woman, however, soon died, and on inspection, the tumour, which occupied the whole cavity of the belly, and weighed seventeen pounds, was found to be formed by one of the ovaries, in which was a cyst containing twenty pints of *pus*, that is, the white creamy matter commonly discharged from abscesses. *North American Med. and Surg. Journal*, 1826.

* *See Dr. Macfarlane's Clinical Reports of the Surgical Practice of the Glasgow Royal Infirmary*, 1832.

cases of this malady, and should be disposed in all cases to try it both internally, and rubbed over the seat of enlargement, in the form of ointment, unless circumstances existed to contra-indicate its use in both forms. The ointment No. 29 is an appropriate formula for external use, or the *ointment of iodide of lead* might perhaps be found still more beneficial in many instances. This latter ointment is prepared by mixing together one drachm of the iodide of lead and an ounce of lard.

Dr. Jewel gives his testimony to the efficacy of iodine in ovarian tumours in the following words, *(Observations on Fluor Albus, p.* 80.*)*

"I may here notice a case of diseased ovary, in which this little, but important, organ had morbidly increased to the size of the fœtal head. The general and visceral disturbance occasioned by its presence in the pelvic cavity, had become so distressing, that the patient, notwithstanding the fatality of an operation had been represented to her, often expressed an earnest desire to have it removed. After various means had been employed without any beneficial result, she was put upon a course of iodine, commencing with ten drops of the tincture three times a day, gradually increasing the dose to thirty-five. She has been under the influence of this medicine about ten weeks, and at the present time the tumour is scarcely to be felt. She has suffered nothing from such large doses of the medicine, but, on the contrary, her spirits are greatly improved, and she anticipates, with great confidence, a perfect restoration to health."

When medical treatment has failed both in reducing the ovarian swelling, and relieving the patient, an operation for its extraction has been proposed by some practitioners. Undoubtedly the operation has been successfully performed in several instances, but great consideration should be exercised, and a very full consultation held, prior to its being determined upon, for it is always a dangerous operation. It ought not to be ventured on in the absence of symptoms sufficiently characteristic of the seat, nature, and connections of the disease, and if the tumour has long been the seat of acute pain, it may be contraindicated, on account of the probability of adhesions having formed to the neighbouring parts. Dr. M'Dowal, of Kentucky, in America, reports having operated in three cases; Mr. Lizars, of Edinburgh, in four; and five cases have been reported by four different practitioners in Germany. Of these, four died and eight recovered. Dr. Macfarlane, of Glasgow, seems favorable to the operation, and Dr. Campbell, of Edin-

burgh (*System of Midwifery, p.* 483,) is decidedly so. Another recent writer, Dr. Mackintosh, of Edinburgh, (*Practice of Physic, vol.* ii. *p.* 372,) is, however, as decidedly averse to its performance, and I am disposed to think he has the most substantial grounds for his opinion.

3. OF OVARIAN DROPSY.

The vesicles scattered through the substance of the ovaries are occasionally the part principally affected; they become distended, enlarged, and at last transformed into cysts, which present great varieties with respect to their size, their number, and the qualities of the fluid they contain—this constitutes the disease called *Encysted Ovarian Dropsy.*

One degree of this disease is constituted by the presence of one or more small serous cysts with transparent parieties, full of a fluid resembling water. These cysts, without changing their nature, may increase in size, so as eventually to occupy half, three-fourths, or even the whole of the organ. The fluids contained in the cysts vary in colour and consistence, in different cases. In some it is serous, mixed with a slimy ropy fluid, like jelly; in others it is matter, or dark-coloured like coffee grounds. In some instances, the parieties are of a fibrous texture, or cartilaginous, or bony. These parieties may become so very thick, and the cavity of the sac so large, as to form a tumour occupying the whole of the abdomen. Externally it is generally knobbed and uneven, and here and there presents considerable dilatations and contractions; in some parts of it we can discover a distinct fluctuation, while in others it is as hard and dense as a stone.

Whatever be the anatomical composition of the intermediate substance, the internal surface of the cysts is always lined with the same kind of membrane, which is smooth, thin, and more or less vascular; in short, possesses all the characters of a serous membrane. Yet, notwithstanding this identity of the lining membrane, each sac generally contains a different fluid, some of which are never found but in the ovaries. Pure serum, fluid or coagulated blood, pus, various fatty matters of different degrees of consistence, and a variety of colouring matters, some of them bearing a strong resemblance to chocolate, are

not unfrequently contained in different cysts, in the same ovary; and there is often but a slight partition between a cell full of pus or serum, and another containing a suety matter, or perhaps tufts of hair.* Now and then the sacs contain a matter so like calf's foot jelly, that it is impossible from the appearance to say that it is not that substance.

The size to which ovarian tumours grow is enormous, and some of the assertions on this point are barely within the bounds of belief. One case is related in Haller's works, in which the ovarium and its contents weighed about one hundred pounds. They however do not usually exceed twelve or thirteen pounds.

The ordinary *symptoms* of ovarian dropsy are very various, and by no means severe, and are limited principally to the effects of pressure on neighbouring parts. Where the increase of the disease is slow, the patient often suffers no other inconvenience than from swelling of the leg on the side on which the tumour is found, or from the unsightly bulk of the belly, which she is unable to conceal. Patients have lived in this manner for many years, with a considerable enjoyment of the comforts of life, the accumulation of fluid rendering it necessary from time to time to perform the operation of tapping. In cases of this kind, symptoms dependant on a rapid increase of bulk, or pressure on any particular organs in the belly occur; such as heartburn, vomiting, purging, difficulty of passing urine, or head-ache, which are removed if the bulk of the tumour be reduced. When both ovaria are diseased in this way, menstruation is always absent; when only one is affected, it is irregular or defective.†

* In *Essays Phys. and Literary, vol.* ii. *p.* 300, a case is referred to in which one ovary contained many vesicles, the other contained a mass like brain, with bones and teeth. In the museum attached to the hospital at Vienna, there is a large ovarium, the inner surface of which is covered with hair. Horstius, (*Opera, p.* 249,) met with an ovary, containing hair, and an oily and pus-like matter.

† Ovarian dropsy is occasionally developed with frightful rapidity, the history of a most painful case of which may be seen in *Johnson's Medico-Chirurgical Journal, No.* 21.

Ovarian disease does not always prevent pregnancy. A very interesting case of this kind is related by Mr. Hewlett, in the *Medico-Chirurg. Trans. vol.* xvii. of a lady, aged thirty-six, who had borne six children without difficulty. In her seventh month of pregnancy she sent for Mr. Hewlett, concerned at the frequent recurrence of strange pains in the abdomen. On examination, a tumour was distinctly traced in the left hypochondriac region, distinct from the womb, like

The symptoms that distinguish ovarian dropsy from the ordinary dropsy of the abdomen are, that here the swelling commences on one side, its surface is unequal, and its fluctuation, if felt at all, is very obscure; often the health is in the commencement but little impaired, the urine is not scanty, and there is no excessive thirst. When, however, the tumour has acquired a large size, the urine is generally much diminished or obstructed, until the bulk is lessened artificially, when it increases in quantity, and the health improves.* It is worthy of notice, that in the recumbent posture, the fluid gravitates, in ordinary dropsy of the abdomen, into the sides and region of the loins, while in ovarian dropsy, the fluctuation remains circumscribed. Occasionally, however, independently of its complication with pregnancy, it is difficult to distinguish this disease from accretions of the peritonœal membrane with effusion, from enlarged womb or spleen, and still more so from ordinary dropsy, the results of visceral obstructions; often also it occurs together with ordinary dropsy of the belly.

It is sometimes impossible to distinguish a scirrhous or dropsical ovarium from diseases of the womb or spleen, or even from disease of the liver; and the following facts prove how requisite it is for the patient to have the best possible advice in this malady, and also for the practitioner to exercise the utmost consideration and caution:—

"Not long ago," (says Dr. Mackintosh, *Practice of Physic, vol.* ii. *p.* 373, *third edit.*) "Dr. Briggs, when my pupil, attended a woman most assiduously during a whole winter, who had an enlarged abdomen, and I had no doubt, after making an examination *par vaginam,* that the great enlargement was produced by ovarian disease. Externally, there was felt

a hard yielding substance. Suitable treatment being instituted, after a few weeks the lady was delivered, but notwithstanding this, and all the efforts of the attendant practitioners, she died at the end of a few weeks more.

The ovarian tumour may not exceed the size of a hen or goose egg, and may remain stationary for years. "A woman," (Says *Dr. Campbell, System of Midwifery, p.* 477,) "is known to the author, whose left ovary has been in this condition from 1815, since which she has had four or five children."

* Portal, (*Cours. D'Anat. tom.* v. *p.* 549,) relates the case of Madame de Rosney, who, in the space of four years, was tapped twenty-eight times; for seven days after each puncture she made water freely, and in sufficient quantity; the appetite was good, and all the functions well performed; but in proportion as the tumour increased, the urine, in spite of diuretics, diminished, and at last came only in drops.

a large, hard tumour on the right side of the abdomen, as if it had risen out of the pelvis, and from feeling the *os uteri* tilted up towards the right side of the pelvis, it appeared still more certain that the disease was ovarian. It was understood that many other medical men had pronounced a similar opinion, and an operation was proposed to her, which she was averse to, but resolved to abide by my opinion, which was, that she ought not to submit to it. Besides the uncertainty of the operation itself, and the dangers which necessarily accompanied and followed it, she was affected with one of the worst forms of epilepsy. The woman followed my advice, but in the course of six months expired during an epileptic fit. On dissection, the uterus and ovaries were found quite healthy, but the liver was enormously enlarged, and it was this organ which had occasioned the tumefaction of the abdomen."

"Some years ago," (he continues,) "I attended a very amiable and interesting young lady, along with Dr. John Gairdner of this city, who laboured under a very complicated set of disorders, which baffled our skill to cure, and we advised her to go to London, where she had a brother a medical man. One celebrated individual, who has figured in ovarian operations, most unhesitatingly pronounced her complaints to arise from disease of the ovarium, which Dr. Gairdner and I were persuaded did not exist. Some time afterwards she died at Newcastle, and on opening the body, the uterus and ovaries were found perfectly sound, but extensive disease was discovered in the stomach, colon, liver, and kidneys."

Dr. Campbell observes, (*System of Midwifery, p.* 479,) in reference to his visiting a woman who had been of no very respectable character—

"Previously to my having seen her, she had consulted two veteran practitioners, both of whom declared her to be pregnant; but this the nymph scouted, and considered an insult. Thereafter she was visited by two surgeons, each of whom pushed a trocar into her abdomen, the one upon the supposition that she was dropsical, and the other from an idea that she had diseased ovary. She died within a year of the last operation, and dissection proved that there was neither a child, dropsy, nor diseased ovarium, but a spleen fully as large as a fœtus."

The *causes* of this disease are often involved in much obscurity. Scrophulous habits are most liable to it. It is more apt to affect those who have borne children, than the unmarried; and the latter very rarely till they are past the age of twenty-five or thirty. Sometimes it appears to have been occasioned by injury done to the womb in child-birth, as for instance, by hasty extractions of the placenta; or by blows, falls, violent passions, or frights.

Treatment. In the earlier stages of this complaint, we must endeavour to remove any urgent symptoms that may

arise, and to prevent their recurrence, by having recourse to the usual means for improving the health, and augmenting the strength. The bowels, therefore, must be carefully regulated by very mild means, as the mixture No. 37—the *beaume de vie*, or the pills No. 19; any symptoms of indigestion being treated by administering the pill No. 30, and also a little of the mixture No. 16 occasionally. General uneasiness or restlessness may be relieved by the warm bath, the cordial mixture No. 31, and laxatives. If at any time much pain be felt, the bowels should be immediately relieved by the enema No. 32, if they are not already freely open, and then four grains of Dover's powder may be taken, made into a pill with extract of henbane. Should these means fail to relieve the pain, and there is a good deal of tenderness present, ten leeches may be applied to the part, followed by warm fomentations of poppy heads, and subsequently a warm linseed meal poultice. Blistering also may be serviceable under attacks of pain in the tumour.

This is a disease, for the most part of an intractable character, but the patient has the consolation of knowing that it may be relieved, by the means above adverted to, and by great attention to diet, the regulation of the passions, and a good country air. When the distension of the tumour becomes great, recourse must be had to tapping, and by a judicious and skilful repetition of this operation, the life of the patient may be prolonged, and her comfort much augmented. We must neither delay tapping so long as to injure by great irritation and distension, nor have recourse to it too early, or too frequently, for the vessels of the cyst secrete much faster and more copiously after each operation, which is a cause of increasing weakness.*

Although this is too often an incurable disease, yet a spon-

* Dr. Denman used to advise the operation to be deferred as long as possible, for every operation is followed by re-accumulation, which is a debilitating process; yet it is astonishing how much may in the course of time be secreted, without destroying the patient. In the *Medical Commun. vol.* ii. *p.* 123, there is a case related, in which the patient was tapped forty-nine times, and 2786 pints of fluid drawn off. The secretion was at last so rapid, that three pints and three ounces were accumulated daily. A patient has been tapped eighty times, and 6831 pints drawn off; 108 pints having been drawn off at one time. *Phil. Trans. vol.* lxxiv. *p.* 471.

taneous cure has occasionally been witnessed. Dr. Mead has related a case where eighteen pints of water escaped by a rupture of the sac through the navel. Dr. Blundell relates that a lady afflicted with this dropsy fell from a carriage, struck her belly against a stone, and that a considerable discharge of urine occurred: she recovered, married and dying afterwards of retroversion of the womb, the cyst of her former complaint was found to have burst, and its contents, effused into the cavity of the belly, to have been absorbed. Sir A. Cooper refers in his *Lectures*, *vol.* ii. *p.* 384, to several examples which he has known of the spontaneous cure of ovarian dropsy. In one case, the fluid was for a long time voided through an ulcerated opening at the navel; and he attended a lady in whom the cyst burst into the bowels, in which instance, the patient was subject to occasional returns of the disease for several years afterwards, but ultimately recovered.

A spontaneous cure of what was supposed to be encysted dropsy of the left ovarium is related in *Johnson's Med. Chirur. Journal*, *No.* 39, *p.* 206. It appears to me doubtful whether this was a case of that disease, but it at least shows that some threatening enlargements of the female organs, (whether of the womb, fallopian tubes, or ovaria,) sometimes terminate not only favourably, but speedily; it being, therefore, calculated to encourage hope even in bad cases, I shall extract it for the use of my readers.

"A young woman, twenty years of age, who had been married for three years, but had never been pregnant, applied to Mr. Burdach, in consequence of a large tumour in the region of the left groin. She stated that soon after her marriage, she experienced smarting pains in that part, and since then that the swelling had gradually developed itself, without causing much inconvenience. One day having exerted herself much to lift a heavy weight, she suddenly felt as if something snapped and gave way internally; immediately a watery discharge flowed from the vagina, the tumour sunk down, and there has been no sign of its reappearance, now for eighteen months since the event happened. The woman's general health is good, but she has never yet been in the family-way."

In the *Cyclopædia of Pract. Medicine*, *part* xviii. *p.* 503, two cases of spontaneous cure of abdominal enlargements are given. The following, which is one of them, is very interesting—

The life of an innocent young woman was once nearly sacrificed by an occurrence analogous to the preceding case. She had a large swollen belly, as if she was several months gone with child: but this enlargement suddenly gave way to a profuse discharge of fœtid matter from the vagina. Unhappily for her, there were two foundlings, who had died from exposure, discovered about the same time; suspicion fell upon this woman, and she was actually condemned as the infanticide. By the humanity, however, of several physicians and surgeons, who accurately examined the case, she was afterwards acquitted, and liberated.

Notwithstanding what has now been said respecting the little influence which medicine commonly exerts over this complaint, I must not close this article without adverting to the use of *iodine* and *liquor potassæ*. From what we have witnessed of the occasional good effects of iodine in various tumours, we are encouraged to employ it in ovarian dropsy, especially after tapping; but it is so active a medicine that none should take it, except under the directions of a cautious and able medical practitioner.* The *liquor potassæ*, or *Brandish's alkaline solution*, (prepared by Mr. Watts, Chemist, 17, Strand,) often very much improves the general health of the patient, and has sometimes influence in lessening the size of the local malady. It should be taken at first in doses of half a drachm, twice or thrice a day, and gradually increased to one or two drachms, in milk and water, common water, or barley water. Dr. Seymour says, (*Observ. on Ovarian Disease, p.* 119,) "Dr. Warren has favoured me with the account of a case which occurred under his care several years ago, in which this remedy was employed in very large doses, as large as the stomach could bear, at short intervals. After some weeks, softening of the tumour took place, adhesion with the great intestine, an opening was formed, and much purulent matter, united with other secretions of various consistence, such as are observed in these tumours, passed by stool. The swelling subsided, and the patient entirely recovered her health."

* The effects of *iodine* must always be closely watched, since it sometimes exerts most marked effect on the breasts or other organs, while the diseased enlargement for which it is administered remains wholly unaffected. A female used this medicine for four months, when her breasts began to sink; and, in four weeks afterwards, hardly a vestige of them was to be felt, although the Derbyshire Neck, for which the iodine was given, was not in the smallest degree reduced.

I think highly of the mixture No. 36:—it is a powerful alterative. The *sudatory* also is worthy of much confidence. In scrophulous cases it has often wonderful effects.

Dr. James Hamilton, of Edinburgh, has strongly recommended the use of small doses of muriate of lime for several months, together with gentle percussion of the tumour, twice a day; and where pain or tenderness was experienced on the ovary being pressed upon, he recommends, in addition to the above means, the daily use of the warm bath. Proper and repeated friction of the tumour has not gained here the attention it deserves.*

Sarsaparilla, either alone, or combined with iodine, merits a trial in this disease. Dr. A. T. Thompson says, *London Dispensatory, seventh edit. p.* 397, "I am at present trying iodine in ovarian dropsy, after tapping: and in two cases it has so far succeeded, that the tumours have not again enlarged." The efficacy of iodine in very obstinate diseases may be seen in M. Magendie's Report, in the *Medico-Chirurg. Journal, vol.* ix. *p.* 197, *in vol.* xii. *p.* 429, and in my DOMESTIC MEDICINE. Friction with the ointment of iodide of lead, and the use of iodurettted baths, merit attention in this disease. Mr. Abernethy thought favourably of blisters after tapping.

Dr. A. T. Thompson has employed iodine in this disease, from thinking "that as the tension of the cyst is probably that state which is natural to, and consequently most favourable for, the morbid enlargement of the diseased organ, and that, whilst this remains, the vitality of the part would always enable it to resist any effort for its removal by the action of remedial agents on the absorbents, but that, were this tension removed, and the cyst to remain flaccid, it would then be nearly in the state of a foreign body within the abdomen: and a powerful excitement of the absorbents might be able, if not wholly to remove

* "Patting, tickling, or the occasional application of the hair brush two or three times daily, over the diseased organ, is a plan, though apparently trifling, which has been known completely to arrest the progress of cases of long standing. In one instance which, for the last eighteen years, has made little progress, I ascribe the suspension mainly to this practice." *Campbell's System of Midwifery, p.* 482.

The sufferer from ovarian affection will find the subject of friction fully explained and illustrated in my *Best Methods of Improving Health*. Cases are therein related proving its extraordinary powers.

it, at least so to change the action necessary for its growth as to keep the disease stationary." *Elem. of Materia Medica, vol.* i. *p.* 345.

It has been proposed to effect at once a radical cure of encysted dropsy, and this has been attempted several times, by making an incision into the tumour, evacuating the water, and afterwards injecting some stimulating fluid, with the view of exciting inflammation in the sides of the sac, in order to produce a permanent adhesion in them—thus preventing any re-accumulation in the diseased cavity. In *Johnson's Medico-Chirurgical Journal, No.* 30, *p.* 501, a case in point is extracted from the Transactions of the Medical Society of Lyons, by M. Rigollot.

The patient was twenty-three years of age, and experienced after an accouchement, an attack of inflammation of the womb, which was not very skilfully treated. The disease became chronic, attended with a dull settled pain in the ovarian region, and general ailing. The abdomen became swollen, and slow consumptive fever supervened. Exciting medicines, (administered under the supposition that the disease was a collection of wind,) aggravated materially all its symptoms. When M. Rigollot was called to examine the patient, her emaciation was extreme, her fever continued, the abdomen prominent in its anterior and left lateral part, and obscure fluctuation was perceptible. The tumour was punctured, and ten or twelve pounds of purulent, fœtid, greenish fluid escaped through the canula. Twenty days after a second puncture was made, which gave issue to some matter, and the cavity was then injected with a decoction of plantain and red rose leaves, with a little wine. Acute pain was endured while the injection remained in the cyst. After its entire discharge, the surgeon kneaded the cyst with his fingers, in order to determine its inflammation: intense pain, vomiting, and swelling of the abdomen quickly ensued, and were energetically treated with antiphlogistic measures. In a month the cure was complete. The patient, nevertheless, retained in the abdomen a small, oblong, indolent tumour, doubtless formed by the adherent parieties of the cyst.

A case is related by Dr. Houston, in the 381st *No. of the Philosophical Transactions*, in which, he says, he made an incision two inches into the diseased ovarium, and evacuated a great quantity of jelly-like matter and hydatids; the wound was afterwards kept open, and the patient is said to have been cured, although the disease had existed for thirteen years, and occasioned violent pains. See also *Martinet's Manual of Therapeutics*, *p.* 196, in which a particular process is described for

successfully operating in these cases, and where the author refers to the *Revue Médicale*, *tom.* iii. *p.* 111, *année* 1825, for the history of an undoubted case in which the author effected a cure by this process.

I have thought it proper to state the nature of this operation, and to give a reference to the preceding cases, but it is undoubtedly a practice fraught with no small danger, and should, therefore, never be resorted to but after much consideration, and an ample consultation. It must not be forgotten that ovarian cysts are almost always divided into compartments, having little or no communication with each other; we cannot, therefore, evacuate them by puncture, and exciting inflammation in one or two of these compartments will only tend to increase effusion into the others. Besides, the inflammation itself of the cyst is no trifling danger. Denman (*Introd. to Practice of Midwifery*, *p.* 82, *seventh edit.*) refers to a case in which the patient died on the sixth day after the puncture of an ovarian cyst, and the injection of a little wine. Other fatal cases are on record.

OF PAIN IN THE BREASTS.

There is a painful affection of the breasts, called *neuralgia*, which is sometimes very distressing, and which it is necessary to notice here. It has its seat chiefly or wholly in the nerves of the part, the technical term *neuralgia* signifying pain in a nerve. This affection may be found in the course of medical practice attacking every part of the body, one particular part being attacked in some individuals, and another in others. *Tic Douloureux* is of the same nature with this complaint, and chiefly attacks the face; but our attention is here confined to the pain found in the nerves of the *mammæ*, or female breasts.

There are two forms of this complaint, one in which the pain is mostly felt only on handling or pressing the part; the other in which it is not at all excited by pressure, but sometimes, indeed, rather relieved thereby. The former is usually called the *irritable breast;* the latter is properly *neuralgia of the breast.*

This affection may attack one breast only, or both; the pain is in general a sharp, darting pain, sometimes hot and exceed-

ingly acute, passing across the breast usually in one particular direction in each patient. In some cases the part is somewhat swollen, but generally there is no visible swelling present. In many instances, perhaps generally, there are periods of complete intermission, and well marked paroxysms, but sometimes these are absent, the disease assuming more of a continued form.

I think the *causes* of this complaint are, derangement of the general health, or disorder of the stomach, intestines, or liver. These are, perhaps in all cases, the real substantial causes, although, as exciting causes, we may reckon, anxiety of mind, excess in diet, exposure to cold, and especially to damp and cold, &c.

Treatment. The chief indication in the treatment is—to improve the general health of the patient, by the usual means pointed out at pages 44—61. If the secretions are improved by the daily use of Plummer's pill, or the pill No. 22,—the bowels carefully regulated by diet, or a mild medicine, as No. 9, or 19, or 37—and the strength augmented by means of tonics, vegetable alteratives, a careful solid diet, free ablutions of cold water, and much exercise in the open air, we shall rarely fail to cure our patient. Among the most efficacious tonics in this malady are steel and quinine. Steel, in the form of carbonate of iron, has been much praised. Like most other medicines, it has had its very zealous advocates, who have spoken in unmeasured terms of its success; it is, nevertheless, a valuable remedy here, and may be taken in doses of ten, or twenty grains, made into pills or boluses, thrice a day. I have never found it necessary to give it in larger doses than ten or fifteen grains, but some practitioners say they have been obliged to carry it to the extent of a drachm, or more, at each dose, and although we are bound to believe the medicine was administered in such doses, yet we are not constrained to believe they were requisite. In general, all that this medicine can effect will be obtained by the smaller doses just mentioned. Some persons seem never satisfied unless they are prescribing either free doses of violent and poisonous preparations, or enormous doses of common medcines. This may be thought by many to be a good practice, but I am assured it is a very absurd and mischievous one—one that may become a mountebank, but not an enlightened physician.

The free employment of cold water by sponging, the use of the hip-bath and douche are excellent means of conquering this malady.

Should the paroxysm of pain be so extremely severe as to call for instant relief, one third of a grain of *the muriate of morphia* may be given in the form of pill, and repeated if necessary.

As a local remedy, I much question whether we can have recourse to any thing so available as strapping the breasts with well-spread adhesive plaster, as advised under the head of *Milk Abscess*, *Part* II. Local applications are of little service here, but I would direct the patient's attention to this means, from believing it will be found a useful auxiliary.

Sometimes *neuralgia* of the breasts is dependent on retained or suppressed menses, when our efforts must be mainly directed towards effecting a proper and regular discharge of the monthly evacuation, by the means pointed out at pages 60—74. The influence which such a cause sometimes has on the breasts may be seen in Mr. Hey's *Observations in Surgery*, and in the *Monthly Archives of the Medical Sciences*, *Jan.* 1834, although the cases there referred to are not precisely those of pain, but rather of extraordinary enlargement of the breasts.

OF POLYPUS OF THE WOMB.

Polypous tumours in the womb are not very uncommon, and are met with both in single and married women. They vary much in appearance, shape and degree of hardness, being sometimes nearly white, at other times of a brown colour; they are sometimes very hard and resisting, in other cases so soft and yielding, that they will not admit of the application of a ligature without breaking to pieces. The hard kind is by far the most frequent. They differ greatly in size, in different cases, varying from the size of a filbert to that of the head of a new-born child.* A polypus no larger than a filbert has given rise to

* A case is mentioned by M. Deguise, (*Nouv. Journal, tom.* ii. *p.* 199,) where a very large polypus, seventeen inches in circumference, and weighing three pounds and a half, was removed by ligature. In this case, probably from the uncommon size of the tumour, spasms, nausea, and other unpleasant symptoms arose, after the application of the ligature.

frequent hæmorrhages. They are of a pyriform shape, have usually a thin pedicle, and originate under the mucous membrane of the womb, which still covers them.

The polypus may be attached either to the *fundus* or upper part of the womb, to its *cervix* or neck, or to its mouth. In the second situation now noticed, it projects sooner into the vagina than in the first; in the third, it is from the commencement in this canal. *In polypus of the fundus* the stalk is completely encircled by the neck of the womb, and if the finger can be introduced into the orifice, it passes easily round between the stalk of the polypus and the encircling neck. *In polypus of the neck* the finger cannot be passed quite round the stalk; it may be passed partly round it, but is stopped when it comes to that part where it is attached to the neck. *In polypus of the mouth or orifice* of the womb, the stalk does not enter the mouth, but grows from the edge of it; it feels as if a portion of the mouth was first prolonged into the stalk, and then enlarged into the body of the polypus.

The *symptoms* are, a considerable mucous discharge occasionally mixed with blood,—sometimes large coagula* of blood are discharged; in other cases the blood becomes putrid, and the discharges are brown and offensive, like those in cancerous ulceration. I had a patient about seven years ago in this place, with polypus of the womb, in whose case the discharges were for months exceedingly offensive, the complexion presented the peculiar yellowish hue of cancerous patients, and her pain and general indisposition were very great. In this case the polypus came away spontaneously while the patient was under treatment, she soon recovered her health, and continues quite well; although, till after the discharge of the polypus, all about her

* It demands especial notice, that *in profuse menstruation* the blood does not coagulate, consequently, whenever blood is discharged in coagula the disease is of a different character, and should be closely investigated.

The symptoms of irritation excited by the tumour are sometimes so great, that forcing pains, like those of labour, are produced, and the polypus may be expelled. In a case related in *Haller's Disp. Chirurg. tom.* iii. *p.* 621, it was expelled when the woman was at stool. In another patient, whose case we find in the *Memoires de l'Academie de Chirurgie, tom.* iii. *p.* 533, the polypus was expelled after severe pain; its pedicle was felt to pulsate very strongly; but a ligature being applied, the tumour was cut off. Instantly the ligature disappeared, being drawn up within the pelvis, but on the third day it dropped off.

considered her to be fast going down to the house appointed for all living. This patient, I believe, was taking iodine at the time of the expulsion of the polypus; but what effect it had, if any, in producing this desirable termination of so formidable a complaint, I was not able satisfactorily to determine

The frequent discharges of blood in this complaint, which is the most prominent and dangerous symptom, have often led medical men, as well as the patients, to mistake it for *menorrhagia*, or profuse menstruation, and the following is consequently not an uncommon case: A lady who had been subject to frequent and profuse bleedings from the womb, consulted first two eminent practitioners in Edinburgh, afterwards one in London; she then went to Rome and Geneva, where some of the profession enjoying the greatest reputation were likewise consulted, but, although examinations were made, nothing was discovered wrong in the womb, and the complaint was treated throughout as a profuse menstrual discharge. She returned to London, and then the physician who had previously seen her, detected a polypus, the size of a large walnut, immediately after large coagula of blood had been discharged. The polypus was easily removed by ligature, the bleedings never returned, and she subsequently enjoyed good health.

Now and then no blood is discharged in polypus of the womb, but the patient suffers from a profuse discharge of the *whites*. In these cases probably the polypus is usually small, and attached to the neck of the womb.

The other symptoms of this complaint are, bearing down; pain in the back and groins; nausea and vomiting, and many symptoms of irritation in the vagina, from the presence of the morbid growth, which descends into it from the womb.

Nothing is known respecting the *causes* of this complaint. A plausible theory of their origin has been offered by a foreign author, (Walter) which he ascribes to irritation, giving rise to an increased afflux of fluids towards some point of a mucous membrane, with subsequent concretion, which becomes organised.

Unless the tumour is very small, the disease is, in most cases, detected by examination without difficulty, there being found an insensible tumour projecting through the mouth of the womb, by which its neck is encircled, so that the finger

can be passed round it. It is distinguished from the cauliflower excrescence by the symptoms detailed under that head, especially by the *watery* discharge, and the irregularity of the surface of the latter. The insensibility of the polypus will distinguish it from the inverted womb; besides which, in this inversion, the tumour is not encircled by the mouth of the womb, unless the womb is only partially inverted, which is a very rare occurrence.* The inverted womb is exquisitely sensible to the touch, and its first appearance is immediately after delivery.

In the prolapsus or falling down of the womb, the tumour has at its most depending part a palpable orifice, that of the womb, into which a bougie can be passed several inches; the tumour is very sensible on being touched; it grows broader the higher the finger is passed, and it cannot pass high, for it is soon stopped by the angle where the vagina is attached round to the womb. The higher the tumour is pushed, the easier is the patient. The polypus presents opposite symptoms: it has no orifice,—it is insensible,—the finger can be passed very high, and the higher it is passed, the narrower is the tumour,—the higher the tumour is pushed the more uneasy the patient feels herself.

Notwithstanding the facility usually found in detecting the presence of polypus in the uterus, it is advisable always to have a second opinion, at least, before an operation is determined on; for even an eminent London surgeon has been known most unaccountably to mistake a relaxed and prolapsed bladder for a polypous tumour, and it was with some difficulty that he was dissuaded from applying a ligature. The same advice was long since given by the judicious Denman, in his *Introduction to Practice of Midwifery, Waller's seventh edition, p.* 62.

Treatment. The cure of this disease sets in a very bright light the value of medical skill, for if it is mistaken and neglected, the patient certainly dies, from the exhausting

* There is *a polypoid tumour* of the womb, which is of a malignant character. It differs from the common polypus in being very unequal and ragged on its surface, without a narrow neck, and made up of a number of irregular portions which lie parallel with each other. It arises from the whole internal surface of the womb, and not from a small portion only, as is the case in true polypus.

hæmorrhages, while if it is detected and removed, she almost as certainly regains perfect health. The cure is effected by applying a ligature round the stalk, and tightening it until the tumour falls off. This can only be done by an able medical practitioner, yet it can hardly fail to be useful to describe the operation here, and to offer some cautions and directions respecting it.

The instrument usually employed for this purpose, consists of two straight or curved tubes, capable of being separated and joined, and known to all medical practitioners. These tubes are made of silver, each eight inches long, separate from one another, and open at both ends. A long ligature, consisting of strong whip-cord, or waxed silk, is to be passed up the one tube and down the other, so that the middle of the ligature passes across from the upper end of one tube to the upper end of the other, and the two ends of the ligature hang out at the lower ends; the tubes are now to be placed side by side, and, guided by the finger, are to be passed up the vagina,* along the polypus, till their upper ends reach that part of the stalk round which the ligature is to be applied; and now the tubes are to be separated, and while one is fixed, the other is to be passed quite round the polypus till it arrives again at its fellow tube and touches it. A loop of the ligature will thus encircle the stalk. The two tubes are now to be joined so as to make them form one instrument; for this purpose two rings joined by their edges, and just large enough to slip over the two tubes, are to be passed up till they reach the upper ends of the tubes, which they bind together immoveably. Two similar rings, connected with the upper by a long rod, are slipped over the lower ends of the tubes, so as to bind them in like manner; thus these tubes, which at the beginning of the operation were separate, are now fixed together as one instrument. By drawing the ends of the ligature out at the lower external ends of the tubes, and then twisting and tying them on a part of the instrument which projects from the lower rings, the loop round the stalk is thereby tightened, and like a silk thread round a wart, causes it to die and fall off.

* The patient should be placed upon a bed: she should lie upon her left side, and her knees should be drawn up towards the abdomen.

The instrument being thus adjusted is to be left, but every night and morning is to be drawn tighter, if it should have become at all slack. Great care must be used in tightening the ligature.

In passing the ligature round the neck of the polypus, care should be taken not to include any part of the womb; and before the ligature is tightened, the patient is to be desired to inform the operator if she feels pain; because if the tumour only is included in the ligature, no pain will be felt.*

While the instrument remains on the polypus the patient must be very careful in turning, and in all her movements, otherwise she may force its upper part against the womb, and do serious injury. A syringe full of warm water is to be thrown into the vagina every day when the ligature is tightened in order to wash away the putrid discharge.

The period of the ligature coming away, will depend on the thickness and firmness of the stalk or neck of the polypus, and the tightness with which the ligature is at first applied. Sometimes it will come away in three or four days; in other cases, it will require ten or twelve days for its detachment. If the polypus is large, the practitioner will find it necessary, when the ligature gives way, to draw it out with his fingers, or to grasp it with a dry napkin. When, however, the polypus is too large to be extracted without much difficulty after its separation, no harm can arise from its remaining some days in

* In the event of severe pain coming on some hours after the application of the ligature, supposing very little was complained of on its first application, we should always suspect that a portion of the womb has been included, and withdraw it. Attention to the following rules will help us very materially to avoid including any portion of the womb in the ligature: *First.* Instead of aiming to pass the ligature as high as possible on the stalk of the polypus, pass it as low as possible, taking care to pass it over the body of the tumour. It is true a portion of the stalk will by these means be left above the ligature; but this is not material, because it does not grow again, but dies and falls away. *Secondly.* When the stalk grows from the neck, if the mouth of the womb can be felt, it will be the best guide where the neck ends and the stalk begins, and the ligature ought to be applied a little below the mouth; but if the orifice or mouth of the womb cannot be felt, the next best guide is the ordinary length of the projecting part of the neck, that is about two-thirds of an inch. When the polypus is very large, and the vagina closely contracted, it is difficult or impossible to reach the stalk and the neck of the womb with the finger, so as to make any thing like an accurate measurement, and the first rule only is practicable.

the vagina, and its bulk hourly lessening by decay, the extraction is rendered more easy.

Of course, after this it will be necessary daily to inject tepid water up the passage, for a few days. In this way a disease which has resisted remedies for several years is removed in a week or two; the hæmorrhages which had lasted so long, and had occasioned so much debility, suddenly and wholly cease, and the patient speedily recovers her health.

Sometimes very small polypi, of the size of a filbert or walnut, are found growing on the neck or mouth of the womb; these being generally too small for the ligature, should be either pulled away with the finger, or twisted off by a pair of surgeon's dressing forceps.

After the removal of the polypus, tonics, as quinine, bark, or cascarilla, are advantageously given to the patient, if much debility is present; and in all cases a mild, nutritious diet, and a pure air, are of great service.

To prove the necessity of the exercise of that caution recommended at p. 121, in the treatment of this disease, I may refer to Dr. Denman's *Introd. to the Pract. of Midwifery, seventh edit. p.* 56, *et seq.*, where, after relating the case of a young unmarried lady, aged twenty-two, who had for a considerable time been subject to frequent and profuse returns of hæmorrhage from the womb, and in whose case he operated for polypus with complete success, for she soon after married, and he lived to see her have "seven fine children, with safe and easy labours,"—he presents us with the following unsuccessful case:—

"Another young lady had long suffered from frequent uterine hæmorrhages, together with most violent pains recurring in the manner of those of labour. High up in the vagina, just cleared through the *os uteri*, I discovered a small polypus, round which a ligature was with difficulty passed. The late Mr. HUNTER was with me at the time. When I began to tighten the ligature, she complained of very severe pain, and presently vomited. The ligature was immediately slackened, but on every future attempt to draw it tighter, the same symptoms were instantly produced. After many trials, I was obliged to desist altogether, leaving the ligature loose round the polypus, merely to keep up in the mind of the patient some faint hope of benefit. The health of this patient was very bad when I first saw her, and in about six weeks from the time of the operation, she died.

"Leave being given to open the body, the womb was found inverted, and the ligature to have passed over the inverted part, which occasioned all the symptoms before mentioned. The polypus could not have weighed more than one ounce, and had a very short, if it could be said to have any stem; so that the womb could not in this case have been inverted mechanically, but by its own vehement action excited to expel the polypus, which, like any other extraneous and offending body, was a perpetual cause of irritation."

Cases of polypi not unfrequently occur where the tumour is confined to the cavity of the uterus, but possesses, notwithstanding, the pyriform shape and narrow stalk; unless the polypus has emerged from this situation, we have no correct means of ascertaining its presence, though of course from the bleeding and accurate examination of the state of the parts, a conjecture may sometimes be formed. In such examples, if we have reason to consider the polypus to be large, the *ergot of rye* may be given with the view of bringing it down into the vagina, which it will seldom fail to do. Indeed, from the power possessed by the ergot in exciting uterine contraction, it will now and then cause, not only the expulsion of the polypus into the vagina, but also the ulceration of its pedicle, so that the polypus will fall off, and the patient will be cured without any further treatment. An interesting case of this kind is given by Dr. Macfarlane, in the *Glasgow Medical Journal*, *No.* iv. The first trial of the ergot failed, as it was apparently bad, but the second occasioned severe and continuous pains, followed by the projection of a smooth, firm tumour at the mouth of the womb, about the size of a small melon. In the course of a few hours the bulk of the tumour had passed into the vagina, and its slender stalk could be felt by the finger. In consequence of the pain and irritation excited, some doses of laudanum were required, but four days after the exhibition of the ergot, the polypus fell off when rising to make water. The patient had two slight returns of flooding, and in a few weeks was restored to her former good health.

The ergot may be prepared by infusing a drachm in four ounces of boiling water, and one ounce may be given every two hours. In the above case four doses were given before the effect was produced.

The presence of polypus in the womb, although a great hindrance to, does not always prevent pregnancy, but it very often

occasions a miscarriage, or premature delivery; and it has been thought that it might sometimes have had an influence on the child born under such circumstances. In the *Journal Hebdomadaire*, *No.* 44, three cases of this disease are related, in which some curious facts are noticed, for the daughter of the last patient referred to had distortion of the spine, the son of the second was rickety, and another lady with whom the narrator is acquainted, and who had been operated on for polypus of the womb three months after confinement, had also given birth to a deformed daughter. One of the cases just adverted to was as follows—P. R. sought advice for a bloody discharge from the vagina, to which she had been subject for many years. She had met with five or six successive abortions, and her first and only living child was rickety. On examination *per vaginam*, a polypus about the size of a plum was felt at the *cervix* of the womb, which had descended very low; its substance was soft, and the finger could be passed along the pedicle into the uterine cavity. Notwithstanding urgent recommendations to the patient to submit to an operation, she refused until another year and an eighth abortion in the third month had occurred, with increase of the bloody discharge. Then the ligature was applied in the ordinary manner.

An interesting case may be seen, related by Dr. John Beatty, in the *Trans. of the King and Queen's College of Physicians in Ireland*, 1821, and copied into the *Lancet*, *vol.* ii. 1823-4, *p.* 712, in which pregnancy occurred during the existence of a tumour in the cavity of the uterus. This lady miscarried about the third month, the tumour afterwards was successfully removed, and in somewhat more than twelve months from that time she gave birth to a fine boy. This is not called a case of polypus, but it appears to me to have been one, the polypus having a very broad base.

I have observed at page 123, that no harm can arise from a large polypus being suffered to remain some days in the vagina, after its detachment by means of the ligature, and this is in general undoubtedly safe; but we ought to be prepared, if possible, for every exigency, and should any foul and very offensive matter be discharged from a detached and putrifying polypus, this may have so great an effect on the patient as to produce symptoms of low fever. In this case we must do our

best instantly to remove the putrifying substance, lest the life of the patient should be endangered. In the *Traité Pratique Des Malades De L'Uterus, par Boivin et Dugés*, which is a very able work, there is *(tome premier, p.* 379) an instructive case of this kind, in which the putrid discharge from an enormous polypus, which they were obliged to allow to remain in the vagina destroyed the patient. I prefer giving the history in the words of the authors:—

" Une autre femme, à peu près du même âge et de la même constitution que la précédente, réglée à onze ans, mariée à seize, accouchée huit fois à terme et une fois au troisième mois, avait éprouvé de violentes émotions, et sa ráison en avoit été momentanément égarée. Depuis sa dernière couche (1817) qui coïncide avec cette aliénation mentale, la malade éprouvait de la gène dans les organes génitaux. Ce ne fut pourtant qu' au bout de trois ans, que la menstruation commença à devenir surabondante quoique régulière encore; en même temps constipation, et gêne de plus en plus marquée dans l'emission des urines; ictère à trois reprises différentes; douleur dans les reins et les cuisses; métrorrhagies croissantes et qui épuisent la malade: des superpurgations imprudentes l'épuisent encore davantage. Arrivée à la maison de santé, elle nous offrit un énorme polype occupant l'excavation pelvienne. M. Dubois en fit la ligature le 25 October, 1825. Le lendemain, écoulement abondant de matières ichoreuses et d'une insupportable fétidité. Les injections n'entraînent qu'en partie le détritus putride: la femme tombe dans une adynamie profonde et périt le 9 Novembre. Les restes de la tumeur avaient séjourné dans le vagin pendent dix-sept jours après l'opération. Il était difficile d'y reconnaître les traces de son organisation primitive.

" Aurait-on pu, sans imprudence, attirer avec le forceps cette tumeur au-dehors et en couper le pédicule a'près l'avoir lié? Si cette ablation eût été possible, elle eût très probablement sauvé la malade, trop affaiblie pour résister à l'impression prolongée des miasmes et du putrilage fournis par la décomposition de cette ènorme temeur, qui sans doute était aussi originairement sarcomateuse."

The prolonged impression of putrid uterine effluvia on the female system is often productive of the most serious consequences, and we should, therefore, always be on our guard respecting it. A patient of the author's some time since had a miscarriage; for many days after there continued a discharge, which the patient disregarded, but which the attending surgeon thought might indicate a retention in the uterus of part of the membranes; the patient felt herself unwell, and early one morning the husband appeared at the house of the surgeon to request his immediate attendance, saying that his wife had been

very ill all night, and very incoherent. On the arrival of the surgeon, the patient was found wandering in mind, and sinking down into low fever; there was an offensive discharge from the womb, and on having recourse to the proper means of ascertaining the fact, he found his suspicions fully verified, and withdrew the remaining part of the *ovum;* by means of a syringe washed out the vagina aud uterus, and thus effectually relieved his patient. From that moment all incoherency vanished, the lady felt most sensibly relieved, and in a few days was as well as usual.

Of Pruritus. See Page 101.

OF SPINAL CURVATURE.

This is not a complaint peculiar to females, and therefore cannot claim an ample notice here, but it is certainly much more frequently found in them, than in the other sex, I mean the distortion to one side, called the *lateral curvature*, and being often very improperly and empirically treated, I would notice it with the view of guarding my readers against imposition and injury.

Any extended notice of this affection is the less called for in this volume, since I have detailed its symptoms, causes, and cure in the *Modern Domestic Medicine*, and have there introduced an interesting and instructive case, shewing the beneficial influence of exercise in its treatment, and to that publication I beg to refer my readers; while I shall here make a few additional remarks, which it is hoped will assist in forming a correct judgment in respect to its nature and management.

That this complaint is, in a very great majority of instances, caused by deficient exercise, and other kinds of bad management, is proved by several circumstances, and especially by the fact, that we very seldom meet with it among the children of the poor, and that among the more respectable classes of society, it is almost entirely confined to the girls. Hence Mr. Shaw is undoubtedly correct in his calculation, when he asserts (*Observations on Spinal Distortions, p.* 2,) that "for fifty young ladies who become twisted between the ages of eight and fourteen, there is not more than one *poor* girl similarly affected.

And for one hundred young ladies who are twisted, there is not one young gentleman." Parents are, of course, anxious to know what can be the cause of this malady becoming so frequent,—we answer, it lies, for the most part, in the palpable and radical defects of the modern system of intellectual and physical education. The justly celebrated John Hunter used to say thirty years ago, that children were made crooked by the means taken to keep them straight; and so it is. And there is also a *forcing* system of intellectual education, whereby children are put too early to certain parts of learning, and forced too hard in them, which greatly helps forward the evil.

In these cases, the subject of *prevention* is one of considerable moment to every respectable family, because it is more easy to prevent these evils than to cure them. The preventive means are, plenty of pure bracing country air, active exercise, the very free use of sponging with cold water, early rising, nourishing food, and a proper regulation of the bowels. Back-boards, stiff stays, and other means frequently employed to preserve and improve the shape, are worse than useless, and ought never to be used.* When girls are weakly, care should be taken not to fatigue them in any sedentary employment, in which they may be engaged, as in standing in classes during examination, sitting at the piano, &c.; and they ought not to be kept in school more than a very moderate period, at each time. Above all, active exercise in the open air is essential, in order to preserve the muscles and bones in that state of strength and vigour, which is the most effectual safeguard against personal deformity of this description; for it must be evident to all, that if the bones possess due consolidation and firmness, and the muscles proper strength, the individual will grow up in a natural manner, and there will be no inclination of the body to either side; but if, on the contrary, the bones become soft, and the muscles debilitated, there will inevitably follow an undue inclination to that side which is the weakest, and to which the girl feels most disposed to yield, in order to gain the greatest ease. This inclination in the beginning is

* "Stays, you know, are good things to let a person slip aside, without that slipping being seen; and that went so far, that I remember the time when it was a *bet*, that upon examination in an assembly of *well brought-up girls*, you would not find one girl among them straight."—*Abernethy's Lectures, in the Lancet.*

partial and slight, but in the growth of the patient, it soon becomes fixed, permanent, and often very considerable, and thus a marked deformity takes place. Parents should consider, that under a deficiency of exercise, the bones, especially of children, invariably become soft and yielding, and that in endeavouring to impart solidity and strength to them, nothing can supply the place of exercise in the open air.* It is well known that the bones of a race horse *during training*, and those of a healthy country labourer, pursuing his ordinary work, are hard as ivory; but if either the animal or man are much confined within doors, and deprived of proper exercise, their bones readily become soft.

In respect to the cure of these distortions, I believe it to be fully ascertained, that regulated exercise in the open air, with free topical friction, and cold bathing, especially by the use of the douche, are the grand means of recovery, and I have no doubt they will perfectly cure the most frightful spinal distortions, even after severe cough, emaciation, and excessive weakness have been induced, by the continuance of the disease. Much will unquestionably depend on the proper regulation of the exercise, and many surgeons appear to me to have failed of success in the treatment of lateral curvature, because the exercise employed was not sufficient. It should never be of a violent kind, but gentle at first, afterwards free and active, being carried on for at least four hours a day, at proper intervals, and as much as possible in the open air. Nourishing food, cheerful society, an open state of the bowels, with rest on a hard mattress when the individual is not exercising, must also be secured.

Iron and steel instruments are frequently employed in lateral curvature of the spine, and especially *Chesher's collar*, and *Callam's back*. I will not say that these are not sometimes useful, but certainly they are much more frequently injurious, and often serve only to amuse the minds of patients, till, after experiencing their worthlessness, it may be too late to resort to better measures. I advise my readers, to be very wary in adopting the use of instruments, and first to have the advice of some of the ablest of the profession.

* "I remember Mr. Hunter saying, you should dress your children lightly and loosely, let them run about, and exercise all their muscles equally, and then they will not grow awry."—*Abernethy's Lectures, in the Lancet.*

Some men of late years have become famous, (perhaps I ought rather to say *infamous*,) for the management of curved spine; and the uniform practice of laying down patients with *lateral* curvature constantly on their backs is a plan, a vile plan, resorted to by some of them, and persevered in for months. My readers should be aware of these persons, who are in the habit of saying, you must bring the patient to town, take lodgings, and let me have her under my directions for eight or ten months, and then something will be done. All this is quite unnecessary, and often injurious, for London is the worst place for such persons, who ought to have the advantage of a dry bracing country air. Sir Astley Cooper decidedly objects to the plan just adverted to, and his opinions may be seen in his *Lecture, No.* 68, *published in the Lancet.*

The *posterior* curvature, however, will generally require uninterrupted rest, and the patient should not be allowed to put foot to the ground for months together. It must be confessed that the subject of spinal disorder is one over which there hangs much darkness, and in which either a very inefficient or injurious mode of treatment is too often adopted. The ordinary and established mode of treating *posterior curvature*, for example, is by caustic issues, or repeated blisters, with leeches, sometimes the tartar emetic ointment, and a little rest. If the patient suffers from a partial or total loss of the power of locomotion, without any visible curvature, then he has prescribed, in addition to these means, sea air, sea bathing, and tonics. Now if we enquire, what are the usual effects of these measures? we are constrained to reply, and all enlightened surgeons, if candid, will answer—they are commonly of no use whatever in restoring to the patient the use of his limbs, and therefore too frequently serve only to augment his sufferings. But it has been proved of late years to a demonstration, that many of these deplorable, and as it has been thought incurable, cases, are to be, and have been, perfectly cured by rest and friction—the rest being *perfect and uninterrupted*, either in the supine or prone position. Three cases of this kind have occurred close by my own door, and I will here annex some of the particulars of one.

Case. A youth about sixteen was observed to trip in walking and dancing, which led to an examination, when it was found he was affected

with a spinal affection, which soon became very serious. He had a considerable projection in the superior part of the spine, and gradually lost all power in the lower extremities, and even all sensation—he became as helpless as a baby just born.

This young gentleman was, in the commencement of his illness, attended by two or three of the most eminent surgeons in London, men of undisputed ability, and for whose talents I entertain the highest respect; one gave it as his opinion, (on what foundation the opinion was built I cannot say,) that the loss of voluntary motion was owing to disease in the spinal chord itself, and that there was no hope of recovery. The means recommended were such as I have just described; he was taken to the sea, carried out, bathed, and medicines prescribed, but in spite of all returned far worse than he went. In short, it was found that no means of this sort did any good whatever, and these eminent men had nothing further to recommend. This lad, notwithstanding, has, in about two years, quite recovered the free use of his limbs, and also his general health, by means of friction over the spine, with *uninterrupted rest* on a couch. He now walks for miles, and is engaged in one of the public offices in London. We are convinced there was such chronic inflammation in some part of the vertebral column, attended with thickening, as pressed on the spinal nerves supplying the lower extremities, thus producing paralysis; and to the gradual removing of which *perfect* rest was absolutely necessary, and in the cure of which it will effect great things. But does not the profession generally oppose this practice? Although so many patients are suffering in like diseases from the treatment instituted, by burning with caustic issues, blisters, and tartar emetic ointment—suffering in vain both from the treatment and the disease—is it not as clear as the shining of the sun at noon-day, that prejudice still raises almost throughout the profession an insuperable barrier to the adoption of this milder and more efficacious mode of management? I know it will be said, that such constant confinement to the couch and the house too often produces serious injury to the general health, and I have myself protested against its adoption in lateral curvature in my publication on Diet and Regimen; but this serves in a very satisfactory way to illustrate the necessity and advantage of a close and comprehensive investigation of diseases, and the various modes of treatment, for those means which in one form of spinal affection will be productive of the grandest results, serve in others only to add debility to deformity, paving the way for the supervention of an additional form of disease.

I know another case of *posterior* curvature in a young lady, in which a cure equally striking was effected by the same means. She was distressed for months by the most peculiar and frightful spasms, which the attending apothecary thought arose from her female health being deranged. He always laughed at the idea of spinal affection, although the patient had

all the undoubted symptoms of it. Both herself and her friends *felt* it was no joke. She happily met with a surgeon who put her upon the right plan of *uninterrupted rest*, whereby her sufferings were speedily lessened, her general health gradually and completely restored, and the power of walking and stooping wholly regained. She continues to this day quite well.

OF SPINAL IRRITATION.

The lateral curvature of the spine is a disease of considerable moment, chiefly on account of its frequency, and the bad treatment pursued by many; but there is an affection of the spinal column which is perhaps of still greater moment, because it is very liable to remain undiscovered for a considerable time, and has been but slightly noticed by medical writers. It is the disease of *Spinal Irritation*, in which the nerves of the spine are chiefly, and sometimes alone, affected.

This is an affection for the most part found only in females; in some instances it appears to be merely a morbid sensibility of a single nerve of the spine, while in others there is a more general and constitutional irritability, in which the irritation is apt to affect different parts of the spine in succession, and to occasion a whole train of singular symptoms:—the last form is confined to females.

The most prominent and characteristic *symptom* is, *the highly painful sensation produced by pressure* on the points of the spinal vertebræ, in that division of the spine where the disease is supposed to reside; and this symptom is never wanting.*

In the slighter cases, the symptoms are mild and intermittent, there is not much pain or uneasiness, and the patient may remain for some time wholly unaware both of the nature and

* There is a very good account of this complaint by Mr. Whatton, of Manchester, in the *Archives of the Medical Sciences, Jan.* 1834, in which he says, this painful sensation "is to be explained, I presume, by the supposition that the irritation has already extended itself along the posterior nervous twigs, supplying the processes and arches of the vertebræ, and the numerous muscles and ligaments attached to them; and its early appearance is easily understood, when we recollect that these twigs are the first which are given off by the lateral nerves on either side, and arise immediately from the spot implicated in the inflammation."

extent of her disorder. Indeed, this ignorance of the nature and extent of the affection is frequently met with even in very severe examples. The symptoms usually denoting the milder cases are—irregular shooting pains in the limbs, and over the chest and abdomen ; occasional head-ache, and loss of appetite; tremblings, and obscure uneasiness over the shoulders and down the back, with general weakness. In the severer examples, all these symptoms are much increased in severity; in particular, the tenderness in certain parts of the spine, especially on pressure, is very great, and even a slight pressure on the most sensitive part will sometimes occasion such anguish, as to produce violent spasms.

Any part of the spine may be attacked with this disorder, and according to the particular part affected will be the consequent symptoms. If its seat is in the superior part of the spine, there will be darting pains and cramps along the arms, shoulder joints, and in the arm-pits: a painful state of the breasts may also be present, with great lassitude and debility, and frequent sighing. Should the middle of the spine be the seat of irritation, there is a tightness around the chest, occasional difficulty of breathing, uneasiness and pain at the pit of the stomach, and over the abdomen, and a difficulty in expelling the contents of the bladder and rectum. When the lower or *lumbar* portion of the spine is affected, there is an aching in the loins, soreness over the skin of the upper part of the thighs, spasmodic dartings along the nerves of the thighs, down to the ankles and feet, with a trembling, unsteadiness, and loss of power.

Mr. Whatton remarks in the *Archives of the Medical Sciences for January* 1834, *p.* 9, "In some acute cases of irritation of the roots of the spinal nerves, or in those that have become chronic, the disease is very frequently seen to extend itself through the medium of the communicating branches, to the *ganglial* system ; and in addition, therefore, to those symptoms, which have just been enumerated, we have others, consisting chiefly of irregular and spasmodic action of the involuntary muscles, and of the perverted functions of those organs and viscera, which derive their nervous energy from the ganglia to which the irritation has been continued." Thus may arise violent head-aches, throbbings of the arteries of the neck and head, and fixed pain at the base of the skull, from the disease

extending itself from the spinal nerves of the neck, to the corresponding *ganglial* system; or, the disease being found in the vertebræ of the back, and extending itself to that part of the ganglial system which sends off nerves to the organs and viscera of the abdomen, the functions of the stomach, intestines, liver, &c. become consequently much deranged; and under a similar extension from the nerves of the loins to their corresponding *ganglia*, there arises painful affections of the kidneys and womb.

Treatment. The principal remedies for this tender state of the spine are blood-letting and blisters, and they are commonly quite effectual. Cases of this affection have been misunderstood, and treated for weeks or months as stomach, liver, or rheumatic affections, &c., which have, nevertheless, yielded most readily and satisfactorily to these means alone, a little aperient medicine being used occasionally. The chief object is, to remove the tenderness and inflammatory condition of the spine, and therefore ten or twelve leeches may be applied near or on the part of the spine which is most tender, and they may be repeated once a week, if necessary. In some mild cases, one application of the leeches and blister in five days afterwards, will usually ensure the cure, provided the bowels and diet are properly regulated; in others, a second application of the leeches and blister may be required; while in the severer examples, the repetition may be called for to the third or fourth time, but rarely oftener than this.

In applying the blisters it is advisable not to place them directly on the sensitive part, at least in the beginning, but at a little distance, since some persons find them too irritating in the former mode of application.

The tartar emetic ointment is another remedy used with great advantage in this affection. It should be rubbed down the spine over the seat of tenderness until a large crop of pustules come out, and these should be kept discharging for a fortnight. This ointment will often prove more useful than a blister.

The ordinary cupping on each side of the spine gives great relief in this complaint, but *dry* cupping has lately been recommended by Mr. J. H. Robertson, of High Holborn, and he relates the following case in illustration of its utility. *See Lancet, vol.* i. 1832-33. *p.* 526.

"J. M., a lady aged twenty, living in the country, and otherwise perfectly healthy, had been troubled for some time with tenderness in the back, which was painful on pressure, and occasionally gave her a good deal of uneasiness.—I found her groaning and writhing in bed, and if these are to be taken as evidences, she was suffering most acutely. The pain was wholly confined to a spot at the very edge of the last dorsal vertebræ, which, upon being pressed, made her scream out violently;—no swelling or discolouration. At cupping I knew they had a horror. They have a much greater dislike to it in Scotland (where this case occurred) than in this country. I therefore proposed to dry cup *all around* the parts, and assured the ladies present that from my knowledge of this remedy, I could depend upon it at once relieving her. There were none but ladies in the family; they were much afraid, and I was absolutely compelled to put a small glass upon a lady's hand, and another on my own, to convince them of its harmlessness and simplicity, but particularly that there would be no cutting. I used two small crystal tumblers and a little whiskey—materials to be found in every house in Scotland. On each side of the painful vertebræ I put one, when she experienced *decided* and *immediate* relief. By the time I had changed them three times, she declared herself perfectly well: comfort was substituted for agony, and she was delighted."

Dry cupping is so called because no blood is drawn in the operation, a circumstance which carries with it a very great recommendation in the case of weakly patients. "The way in which I generally use it," says Mr. Robertson, "is to throw a very minute bit of paper touched with ether or turpentine, lighted, in a large glass or tumbler, and press it down in the usual way. This, though not the most elegant, is by far the most powerful way of producing sudden determination towards its surface. I can, almost in every instance, in a favorable part of the body, fill the glass or tumbler more than half full of integument and muscle. On the chest, back, belly or hip, where the glasses have plenty of space, I would put on two or more at once, and of a size much larger than those in common use." This practice of dry cupping has been strongly advocated, as being of great service in many disorders, by one of the most experienced and distinguished surgeons of modern times—Baron Larrey, whose penetration and activity early attracted the attention of Napoleon Bonaparte, who made him his surgeon in chief; and certainly it merits our confidence in the present complaint.

After the employment of the preceding means, the generality of cases will be benefited by attention to the administration of

a little alterative and tonic medicine, and in the long-standing examples this will be indispensably necessary. The pill No. 22 is very suitable as an alterative, and the pill No. 20 as a tonic. I have found the extract of sarsaparilla combined with a little rhubarb and quinine a very useful remedy in these affections. In the case of a young lady now under my care, in whom there is great derangement of the secretions generally, with much debility, uncommon tenderness of a considerable portion of the spine, and particularly about the last vertebræ of the back, leeching the spine, and the internal use of these pills, have been attended with the most satisfactory relief.

OF STERILITY, OR BARRENNESS.

Female unfruitfulness is generally regarded as a very serious evil, and in medical practice it is considered a difficult subject of investigation. I shall be gratified if I can in any degree elucidate it.

The *causes* of barrenness, as originating with the female is a most interesting and important subject to the medical practitioner, and likewise to many other persons, since, in being fully discovered, they lead almost with peculiar clearness and satisfaction, to the right use of the right means of cure, where the case admits of the employment of such means.

There is—1. A barrenness of impotency, arising from the imperfection or abolition of the conceptive power; 2. A barrenness of mismenstruation; and 3. A barrenness of irrespondence or incongruity.

1. THE BARRENNESS OF IMPOTENCY

May be either *organic* or *atonic*. The *organic* sterility is produced by some structural hindrance or defect, whether natural or accidental; and this may be of various kinds. For the vagina may be imperforate; the ovaria* may be defective, or

* It will be seen, by referring to the article on *Diseases of the Ovaria*, that these are highly important organs in the female economy, and their healthy state a matter of considerable moment. It is, however, not a point of consequence if one ovarium is imperfectly formed, or has no connection with the womb, provided the other be entire with its proper appendages; and it seems also pretty clear, that among women the *extent* of fecundation does not appear to be much impaired by the defect of a single ovarium. As a proof of this, Dr. Granville read a paper

wholly wanting, or imperfectly developed, or destitute of *ovula;* or the *fimbriæ* may be defective, and incapable of grasping the womb; or the *fallopian tube* may be impervious, or wanting; in all which cases barrenness must necessarily ensue.

The only case of organic sterility which admits of cure, if we except that arising from the presence of a polypus* in the womb, is that arising from an imperforate vagina—this has been a bar to the birth of children in not a few instances, at least, until the impediment was discovered and removed, when conception and the successive birth of several children has followed. The operation is usually a simple one, and it is referred to under *Green-sickness*, in reference to those cases of obstructed menstruation which arise from an imperforate state of some part of the vaginal passage. There is a great difference in the kind and extent of the imperforation, and therefore an able surgeon should always be consulted with a view to its removal; still the female has been known successfully to be her own operator, and Dr. Mason Good relates the following instance, *Study of Medicine*, *vol.* iv. *p.* 142:—

"The author was lately consulted by a very amiable young couple in an instance of this kind, to whom the want of a family was felt as a very grievous affliction. The *hymen* had a small aperture, but was tense and firm, and the ordinary force was not sufficient to break it. He explained the nature of the operation to be performed, and added that he had no doubt of a successful issue. The lady was reluctant to submit herself to the hands of a surgeon, and hence with equal courage and judgment became her own operator. The impediment was completely removed, and she has since had several children."

I would, however, warn the patient against attempting any thing of this kind, lest in consulting her feelings of delicacy she should subsequently feel reason to regret it, from doing herself an injury.

Sometimes difficulties of the kind now referred to may be conquered without any operation by a cutting instrument,

before the Royal Society, on April 16, 1813, containing the case of a female whose womb was found after death to have had but one set of the lateral appendages, and, consequently, a connexion with but one ovarium, and who, nevertheless, had been the mother of eleven children, several of each sex, with twins on one occasion.

* Polypus of the womb does not always prevent pregnancy, but I mean to say, that when it does, it is an impediment easily cured.

merely by the use of a tent made of sponge, or of lint rolled into the form of a bougie, and then dipped in melted wax and lard, the proportions being about one-third of white wax to two-thirds of lard. The lint and wax tent is an excellent one, and if properly prepared and used, will supersede all others. It is quite smooth, stiff enough to answer all the purposes required, and yet sufficiently yielding not to injure the parts. The size of it also may readily be augmented at pleasure until all obstruction is overcome. The best plan is to begin with one of about half an inch in diameter, gradually increasing it to a full size, which may be that of an inch or an inch and a half in diameter; it being introduced every evening, and allowed to remain for one, two, or three hours, or as long as the patient can comfortably bear it. Dr. D. Davis mentions (*Practice of Obstetric Medicine*, *part* xxiii. *p.* 503,) one case in which "after the failure of a sponge tent, a failure however probably in a great measure to be imputed to some awkwardness in the mode of its application, the object was eventually attained by the introducing daily into the vagina a round wooden instrument of about an inch and a half in diameter."

It is necessary to caution the patient not to depend on this means in every case, for undoubtedly there are many instances in which it will not be sufficient to overcome the existing impediment, which will, nevertheless, be easily and quickly removed by a division with the knife.

The *atonic* barrenness arises from a direct want of tone, and the most frequent cause is a life of intemperance of any kind, and especially of intemperate indulgence in sexual pleasures. Violent contusions on the loins, or the hypogastric region have been known to produce it.

In the *treatment* of this case, we have to recommend country air, gentle but sufficient exercise, the regulation of the bowels, tonics, especially steel and ginseng, and bathing,—the patient commencing with the tepid bath at 94 degrees, and as soon as practicable proceeding to the use of the cold bath, or cold shower bath. Daily friction with salt and water over the loins and lower belly is also a useful remedy. Saline medicines (see page 83) will in some instances be very efficacious.

We may remark here, and this remark is also applicable to the next class of cases to be noticed, namely, *Sterility from*

Mismenstruation, that it is not merely going into the country for a short time which will answer the purpose, but taking up a residence in the most healthy part that the patients' circumstances will permit them to select. Probably of all parts of this island, the healthiest parts of North and South Wales are to be preferred; but many other very healthy situations are to be found. It is an undoubted fact, that women who have had no children while residing in towns, especially large towns, have become mothers, and some of them speedily so, upon going to live in the country. Removal into a warmer situation is sometimes successful.*

2. BARRENNESS OF MISMENSTRUATION

Forms the second class of cases of the present malady.

Where there is a manifest retention of the menses, productive of the general symptoms of disorder noticed under *Retention* and *Suppression* of the catamenia, it is rarely that conception takes place, in consequence of the morbid condition of the organs that form its seat. For the same reason it seldom occurs where there is difficult and painful menstruation, especially under some forms of that affection, as I have noticed at page 93; and if, during any intermediate term, conception accidentally commences, the next paroxyms of distressing pain puts a total end to all hope by separating the germ from the womb.

But there must be not only ease and quiet in the organs under consideration, but likewise a healthy degree of tone and energy, in order that they should prove fruitful: and hence, wherever the menstrual discharge is more frequently repeated than in its natural course, or is thrown forth even at its proper time in great profusion, and, as is generally the case, intermixed with coagula of blood, there is as little probability of conception as in difficult and scanty menstruation. The organs are too debilitated for a new process.

* "A respectable lady who has resided for many years in New South Wales, informed the author a short time ago, that she had known many instances of females who had ceased to bear children in Europe, becoming the mothers of second batches of children subsequently to their emigration to Botany Bay; adding, that the fact was so notorious that before she left that country it was become the subject of current observation at Sidney."—*Dr. D. Davis's Principles of Obstetric Medicine, part* xxiii. *p.* 508.

There is solid ground for the belief, that very many of the cases of female sterility to be met with belong to this class, and that they are for the most part curable. The cure of course will depend upon a cure of the particular kind of morbid affection that operates at the time, and lays a foundation for the sterility. Of these particular kinds of morbid affection I have treated under the heads of *Retained*, *Suppressed*, and *Difficult Menstruation*, and therefore have the less to say here on the subject. The causes of female sterility are frequently hidden in obscurity, but they might perhaps be oftener ascertained, if more closely sought after, and more commonly and sooner remedied, if the proper means were employed. If it were not so, I think we should not have many examples of women becoming pregnant for the first time, after having been married for several years. The proper explanation of such events, occurring in such a way, seems to me to be, that some functional, and consequently curable disorder, has existed in the system, especially affecting the generative system, which by medicines or other means employed for the removal of perhaps some ordinary and visible indisposition,—or by a change in the mode or place of living, or it may be a spontaneous improvement in the constitution,—has been corrected; when the existing physical impediment to conception being removed, the union has been happily crowned with a family, and sometimes a numerous family. Witness the case of Catherine de Medicis, Queen of Henry the Second of France, who had been married for ten years before she gave her husband any promise of an issue; in the sequel, she blessed him with a numerous family. Anne of Austria was barren for twenty-two years, and afterwards gave birth to Louis the Fourteenth.

Dysmenorrhœa, that is, difficult or painful menstruation, is, as already remarked under that head, a frequent cause of sterility; hence Dr. Mason Good says, (*Study of Medicine*, *vol.* iv. *p.* 48), "The frequent return of the periodical misery embitters the life of the patient, and effectually prohibits all hopes of a family: for if impregnation should take place in the interval, the expulsory force of the pains is sure to detach the embryon from its hold, and to destroy the endearing promise which it offers." The same sentiment is found at page 90 of this volume, and if the opinion therein advanced is correct, respecting the

curability of that affection in the majority of cases, it tends very much to establish the correctness of the previous sentiment, that this malady might be more commonly and sooner remedied, if the proper means were employed. At page 93, a case is referred to in which a lady, who had been married for nineteen years without having any issue, was favoured by the birth of a fine girl, directly after having been cured of a long standing menstrual obstruction. Mauriceau refers to several cases of barrenness, (*See Mauriceau sur les Maladies des Femmes, Observ.* 442, *p.* 366, *Observ.* 503, *p.* 417, *Observ.* 516, *p.* 428, *Observ.* 587, *p.* 484,) which he attributed to an excessive narrowness of the passage through the orifice and neck of the womb. Dr. Mackintosh, of Edinburgh, says, (*Pract. of Physic, vol.* ii. *p.* 353, *et seq.*) of ten women cured of painful menstruation, seven subsequently fell with child—one had been married between seven and eight years, without having an issue, and was reduced to a shadow from constant ailments; but after the use of the means he advised, she recovered her health, strength, and flesh, and became pregnant at about the termination of nine months from the date at which the means had ceased to be used. Whether the particular means recommended by Dr. Mackintosh be or be not generally advisable, or the best, is not so much the question here, as the result of the treatment.—The use of his peculiar remedy I have already considered under *Painful Menstruation.* Mauriceau (*Malad. des Femmes, vol.* ii. *p.* 238) relates a case corroborative of the views taken on this subject by the present author:

"A female was barren for fifteen years. She displayed no obvious ailment for the first twelve, but during the last three years she suffered from a complaint which reduced her to a condition of extreme debility. She visited the waters* of Vichey in the spring, and again in the autumn, and drank that celebrated tonic and aperient. Her health was surprisingly improved, and in four months afterwards conception followed."

It is indisputable that many persons, both men and women, are continually met with who "display no obvious ailment" to ordinary observers, and yet to a scrutinizing and experienced eye there is manifested undoubted indisposition, and sometimes such considerable derangement as places the individual on the

* See the account of Mineral Waters at the end of the *first part* of this volume.

very borders of either a severe attack of acute disease, or the invasion of a troublesome chronic disorder.

Since the most frequent functional and curable cause of sterility is found in a deranged menstruation, the best, indeed the only means of cure, will be those plans of treatment which have the effect of greatly improving the condition of the female in this respect; and it is worthy of particular notice, and is at once a ground of encouragement to the physician, and of consolation to the parties concerned, that a *perfect* cure of this derangement is not always, perhaps not generally necessary, but only a certain degree of amendment, in fact, just such an improved state as reaches the point of removing the impediment now referred to. For there are very many mothers, who, prior to their bearing children, have suffered, and some of them severely, at their monthly periods, but this was not of such a kind, or to such an extent, as prevented conception, which proves that in order to this event, it is not requisite that women should be perfectly free from all deranged menstrual affection.

Every person of observation knows how powerfully moral agents or influences often affect the physical frame, and the pregnancy of the human female may not unfrequently be traced to a change mainly induced by such influences. Thus women have conceived after having enjoyed some unusual gratification, or after having been placed in much more favorable circumstances, in these respects, than at any former period of their lives. A case illustrative of this kind of influence may be found recorded in *Davis's Principles of Obstetric Medicine*, *part* xxiii. *p.* 498. The substance of it is this—A lady, aged twenty-four years, was delivered of her first child, after having been married sixteen months. She suffered afterwards in her health, but soon recovered. She, however, did not again become pregnant for upwards of five years; at the end of that period her only child was exposed to imminent danger, and she thought he would not survive the injury he had sustained; but the assurance speedily afforded by the boy's medical attendants of his being free from all danger, was received by the mother with so much delight, as to make her, as she expressed it, "almost wild with pleasure." We cannot at all approve of the state of moral feeling which led to such an extraor-

dinary excitement, but although morally bad, it appears to have been physically productive, in rousing the dormant sensibility of the uterine system, for she *immediately* conceived of her second child, and has since become the mother of six more children.

In the treatment of curable cases we have three things particularly to engage our attention, namely, 1. *To ascertain the particular kind of diseased affection present, with a view to its removal by the use of appropriate medicines, or local applications;* 2. *To regulate the diet and regimen of the patient;* and 3. *To consider the subject of locality and climate.*

There is no specific medicine for the cure of the diseased affections which prove a bar to conception, but they must be treated on the general principles noticed in several parts of this volume, and especially under the head of *Green-sickness*, *Suppression of the Menses*, and *Difficult Menstruation.* When treating those subjects I have endeavoured to show, that excessive irritability, or chronic inflammation of the internal membrane of the womb, thickening of its neck and other parts, excessive uterine or vaginal discharges, &c. are often the physical conditions which we are called upon to cure, or at least materially to ameliorate, and the best means of accomplishing these indications are there likewise, I hope, clearly pointed out. Mild mercurial alteratives, sarsaparilla, hemlock and guaiacum, dandelion, *galium aparine*, and saline preparations, are here the most efficacious medicines, and when properly prescribed are capable of accomplishing changes, not only great and beneficial, but quite unexpected. *To improve the quality of the blood* must in some instances be looked upon as of great and primary importance. *The life of the flesh is in the blood*, and those who would instrumentally give life to others must not overlook this great fact. The waters of Vichey no doubt cured the female whose case is reported by Mauriceau, by improving the quality of the vital fluid. See page 83.

We must not, however, overlook the diet and regimen of such persons. On this point I cannot now offer any precise directions, at least so far as diet is concerned, because it can only be determined by a consideration of the state of each individual. If much debility be present, we would generally advise a mild nutritious diet; but undoubtedly those who are favored

with the most nutritious food are in general not those who are blessed with the most numerous offspring, while those have commonly large families whose scanty and innutritious fare, and general hardships, might, if we did not know to the contrary, have seemed to militate greatly against a multiplied propagation. Thus twins are extremely common in the Highlands of Scotland, and still more so among the poor in Ireland. It appears from authentic reports, that in the Lying-in Hospitals in London, twins occur once in every 85 births, and three children at a birth, once in every 14,393; while in Dublin, among the still more scantily fed poor of that city, the proportions are 1 to 49 for the former, and 1 to 1,462 for the latter. This speaks volumes in favor of a spare diet, and merits the attention of the wealthy, who are in circumstances likely to render it a matter of careful consideration. It is true that it is not only the spare diet, but likewise the laborious habits of the poor, which contribute to this advantage the latter have over the former; and these must be united in order to produce the fullest effects. The proportionate infecundity of these two classes is, in general terms, usually stated as six to one.

It is said that a Dr. Taylor, who many years since practised at Croydon, when consulted on this point, looking to the probable advantages of a spare diet, used to place both the husband and wife on a diet of milk and vegetables, and that by this means he succeeded, in several instances, in realizing the hopes of a family. This I think an excellent practice, where it is not contraindicated by any peculiar condition of the parties, and especially when conjoined with an active life in a good country air.

Notwithstanding what has been said in the preceding page, it must be acknowledged, that a very nutritious diet will in some cases be the best. Those articles of diet which afford an abundance of chyle, and tend to general invigoration and renovation, have undoubtedly been found of service, especially in particular instances.* Oysters, especially if eaten at the spawning time, are excellent; and so are fresh eggs. Pigeons are

* That some substances possess an exciting power cannot be doubted, since such a power is manifested on animals, and they cannot be supposed to be under the influence of imagination—thus hemp-seed and buck-wheat have this influence on birds,—eggs and sweet milk have it in the case of horses.

good, and probably lobsters, if the digestive powers are equal to their assimilation. Linnæus praises the aliment procured from the vegetable substances of the *Gynandria-diandria*—the *orchis*, &c. Salep is of this family.

I have before remarked, that change of place appears in some instances to have led to the birth of children, for it is undoubted that locality and climate have considerable influence on the female constitution in reference to the present subject. The reader may gather the sentiments of the present author, in respect to the most eligible situations in this country, from what is said at page 139. In general, any dry salubrious air, especially if in an elevated situation, will answer well, and we advise active agricultural employments. Fodéré, a French author of reputation, has made some valuable remarks on this point. *Pathologie et Médicine légale de la Stérilité, Diction. de Sciences Médicales, p.* 517.

"The human race," says Fodéré, "is also, doubtless, the subject of favorable conditions in respect to its existence and its means of multiplication. A humid warmth of climate is that which would appear most to suit it, not so much, indeed, as a means of long life, but as a condition of its easy and rapid propagation. The extremes of heat and cold, of dryness and humidity, are conditions of climate less favorable to the multiplication of our species. Lower Egypt has, at all periods, been represented as an immense nursery both for the human species, and of animals. The same prodigious activity of the function of re-production appears to extend along all the great rivers of Africa. The sea coast, both of the Ocean and of the Mediterranean, are extremely densely populated; a circumstance as much probably to be ascribed to the sweetness of the climate as to the habit of living upon fish, of which the meat is nutritious and easy of digestion, to which the inhabitants of those countries are addicted. Higher Egypt, on the other hand, the arid regions of the interior of Africa and Arabia, and all those countries which approach the Arctic pole, and which stretch beyond the sixtieth degree of latitude, are less numerously peopled. In the province of Nice, after having witnessed the greatest fecundity in the basin which surrounds that town, and which forms its immediate territory, as also that of the valley of Nervia, we are surprised on ascending the heights of Perinaldo, to observe what a great number we meet with of young women who have never menstruated, and of married women who have never had families. I have likewise had occasion to make similar observations at Beull, a district northward of the same plains. Both of these communes have their localities on very dry and elevated tracts of country: the one, however, having the advantage of a warm and genial aspect, whilst the other is exposed to one of an icy coldness. Again, whilst

practising my profession at Martique, a neighbourhood peopled by fishermen and sailors, and remarkable for its swarms of children, I was often consulted by the inhabitants of Cape Couronne, which was not more than two leagues from Martique, for amenorrhœa and sterility. Now the elevated platform of Cape Couronne is precisely similarly situated in respect to its climate with the heights of Perinaldo."

South Australia, New Zealand, and other neighbouring places merit confidence in this respect.

Of the last general cause of sterility—personal aversion—it is unnecessary to say any thing here. It is irremediable by the healing art, and can only be attacked by a kind, assiduous, and very affectionate attention, which will rarely fail of its object.

OF TUMOURS.

By the term *tumour* is understood a swelling possessing some solidity. Tumours in general are considered to be formed by the effusion of coagulating lymph in the part, either accidentally, or in consequence of disease, which is afterwards converted into a living part, by the growth of the adjacent vessels and nerves into it. The observations of the late Mr. Abernethy on this subject, in his publications, are very valuable, and he thought that the manner in which tumours are formed is best illustrated by those which hang pendulous from the membranous linings of different cavities. He used to advert to an example noticed by John Hunter, in which, on the cavity of the abdomen being opened, there appeared lying upon the lining membrane, a small portion of red blood recently coagulated. This, on examination, was found to be connected with the surface upon which it had been deposited, by means of an attachment, half an inch long, and this neck had been formed before the coagulum had lost its red colour. Mr. Abernethy used to say, that if vessels had shot through the slender neck, and organized the clot of blood, this would then have become a living part: it might have grown to an indefinite magnitude, and its nature and progress would probably have depended on the organization which it had assumed. He mentions his possession of a pendulous tumour, found growing from the membrane lining the abdomen, and which was undoubtedly formed in the same manner as the tumour above noticed, that is, by

vessels shooting into a piece of extravasated blood, or lymph, and rendering it a living organized substance. When the deposited substance has its attachment by a single thread, all its supply of blood, whereby it grows, must proceed through that part; but in other cases, that is, where its connection with the surrounding structure is more or less broad and extensive, the vessels shoot into it irregularly at various parts of its surface. Thus, an unorganized concrete becomes a living tumour, which has at first no perceptible peculiarity as to its nature; and it is remarkable, that although its supply of blood is furnished by the vessels of the surrounding parts, it seems to live and grow by its own independent powers, while its future structure seems to depend on the operation of its own vessels. Thus in one case we may witness a sarcomatous swelling, while in other cases we see an encysted or steatomous, an osseous or a cartilaginous tumour. Now and then we observe, that the structure of a tumour is like that of the parts near which it grows; for example, such as are pendulous in joints are cartilaginous or bony, and fatty swellings frequently form in the midst of fatty substance, as in the female breast; but the resemblance of the structure of a tumour to that of the neighbouring parts, is not generally observable.

Tumours of various kinds, size, and consistence, are to be found in the human body, and that almost in every part; but I am now concerned only with those peculiar to the female, and I have to advert first, to *Tumours of the Breast;* and secondly, to *Tumours of the Womb.*

OF TUMOURS OF THE FEMALE BREAST.

I have stated at page 11, that there were several kinds of tumours attacking the female breast which are not malignant, but which are sometimes mistaken for cancerous swellings. The chief of these are: 1. *The Irritable Tumour;* 2. *The Simple Chronic Tumour;* 3. *The Encysted, and The Adipose Tumour;* 4. *The Sarcomatous Tumour.*

None of these swellings are dangerous to life; some of them occasionally grow to a large size, and therefore require to be removed, but others remain small, and do not at all affect the constitution.

Before I proceed to describe the different kinds of tumours found in the female breast, I think it advisable to warn all such sufferers against a too common practice—that of plentiful leeching, blistering, and the long continued use of such irritating and noxious articles as iodine. These means are commonly urged upon the patient without reason or moderation; nothing is more frequent in surgical practice than to carry them to an extreme extent, to the aggravation of the patient's sufferings, and the partial ruin of her health, while the tumour is not reduced in size a hair's breadth. Not unfrequently mercury also is given in salivating doses, to the permanent injury of the integrity of the functions of digestion and assimilation, &c. These are barbarous practices, and my readers should be on their guard, and not submit to either of them.

1. *The Irritable Tumour* generally occurs in females from fifteen to twenty-five years of age. If this tumour is examined otherwise than with gentleness, the patient will experience pain for hours, and even days afterwards, such is its exquisite tenderness. It is painful in common, but the tenderness and pain immediately before the monthly periods, are sometimes almost incredible,—a sure sign of its being connected with an unhealthy state of the menstrual functions.

The object of treatment here is, to bring the functions just noticed into a healthy state, which must be done by the means advised under *Green-sickness*, or *Suppression of the Menses*. There is not the least cause for alarm in these cases, and if the pill at page 63 be given daily, the diet and exercise of the patient being also attended to, the irritability of the breasts will soon subside: or four grains of the ammoniated iron may be made into a pill, with extract of gentian, and given thrice a day with great advantage—this is an excellent pill in such cases. Genuine *Eau de Cologne* forms a good embrocation for the breast.

The sufferers require a great deal of pure air and exercise, that their blood may be perfectly *oxygenated*—they should eat plenty of salt, and read the remarks at page 91, with the view to act upon them.

2. *The Simple Chronic Tumour of the Breast* is found mostly in young women of a healthy appearance. It is an exceed-

ingly moveable swelling, more diffused in the surrounding substance than true scirrhus or cancer; that is, its limits are not so distinctly defined, and it has often a lobulated feel, being divided into distinct parts by septa or bands. Its size is generally from that of a filbert or walnut to that of a billiard ball.

Its *causes* are not known. Pressure produced by stiff busks, usually worn in stays, seems sometimes to have operated as a cause.

In the *treatment* of this tumour little success is ordinarily met with. If the health of the patient is impaired, we are certainly called upon to endeavour to improve and restore it, for which purpose we may give the alterative pill No. 22 every night, and sarsaparilla during the day. In some cases quinine, in others steel, during the day, will be of great service. The ointment No. 29, or the ointment of iodide of lead may be tried as a local application, rubbed into the part.

3. Of the *Encysted Tumour of the Breast* there are two kinds at least, namely, the *hydatid* and the *adipose* tumour.

The *hydatid* tumour consists of numerous cysts, containing water, as in hydatids or cysts that are found in any other part of the body. There are two species of this complaint—the one which contains a fluid—the other a globular hydatid, such as is found in the liver and other parts of the body; both of these are found in the breast, but the former is by far the most frequent form. It is in the commencement of a solid feel; after it has continued some little time, without any feeling of fluctuation in it, it may be divided into a solid and fluid part, and on putting the hand on it you are able to say, Here it is solid, there fluid; but it is mostly unattended with pain. It is quite free from discoloration, excepting a little prior to ulceration, when the part about to ulcerate changes colour. The tumour is wholly unaccompanied with constitutional derangement, excepting when ulceration commences, and then the constitution will be affected with slight irritative fever.

When it has acquired any considerable magnitude, a slight inflammation begins in one part, and then this ulcerates, which allows of the discharge of a serous fluid. This being discharged, and the cyst empty, suppuration, with partial adhesive inflammation, is set up, and the cyst becomes obliterated; another undergoes the same process, and so on, one after

another. By a continuance of this process the breast sometimes wastes away. It is more frequently seen in the young than in those of advanced age.

Of the *causes* of this disease we know nothing.

In the *treatment* little or nothing can be done, except by surgical means. The disease never requires removal on account of any thing malignant in its character, but the magnitude of the swelling often leads the patient to solicit for its removal. When the diseased part is taken away, the complaint never returns.

When the tumour is composed of a single cyst, Sir Astley Cooper recommends the cure to be attempted by puncturing it, and then exciting the adhesive inflammation, whereby its sides are united together, and the disease cured. He relates the two following successful cases, which are worthy of being recorded here. See his Lectures in the *Lancet*, *vol.* i. 1823-4, *p.* 708.

Case 1. "A young woman was sent by a respectable medical practitioner to Guy's Hospital, with a swelling of the breasts, and for the purpose of knowing whether an operation was necessary for its cure. She was nineteen years of age, and when I examined the swelling it was moveable, and I was almost inclined to suppose that it was scirrhous; but her constitution was sound, her general health exceedingly good, and I said no operation ought to be performed. I kept her in the hospital some weeks to see the progress of the complaint; but the girl being tired of waiting any longer, left the hospital. I lost sight of her for three years, at the expiration of which time she came back to Guy's with a considerable swelling of the breast, which, on examination, I found to be partly solid and partly fluid. The gentlemen being assembled in the theatre to see the operations, I ordered this patient into the room, and said that I should not remove the breast, but simply introduce a lancet into it, and open the swelling. Having done this, water paler and less colored than serum, escaped in abundance through the opening. I said, 'all that it will be necessary to do here, will be to produce the adhesive or suppurative inflammation. Do not close the opening till the adhesive process has commenced, and glued the sides of the cyst.' This was done, the sides of the cyst were glued together, the opening was closed, and the patient was discharged quite cured."

Case 2. "During the last summer a lady came to me with a swelling of the breast, not very large, but hard. At first I was led to think it scirrhous, but did not decide upon its character; and on looking at the constitution of the patient, I was pretty well assured that it was not scirrhous,

nor of a malignant kind. I said that I would watch it; and told the patient all that it was necessary to do would be to attend to the state of her bowels. She came to me from time to time, and I perceived that in the centre some fluid was forming. After some time the fluid accumulated, and one day I put a lancet into the swelling, and discharged a quantity of serum. I put some lint into the wound so as to form a tent to preserve the opening: in a short time granulations arose from the bottom of the cyst, and the lady became perfectly cured, no disease having returned in the breast."

The next kind of encysted tumour of the breast to be noticed, is the *adipose* or *fatty*.

These are similar to wens, which are found in different parts of the body. They are enclosed in a membranous cyst, and we can pull the membrane off, after making an incision into the swelling. They are generally of a round shape, and are more elastic (uniformly elastic) than fleshy or cancerous swellings. They are not at all dangerous, but sometimes grow to an enormous size. Sir Astley Cooper once removed one which weighed fourteen pounds ten ounces.* The operation is a

* Since the period of that operation, he has removed one from the abdomen of a man aged fifty-seven, weighing thirty-seven pounds ten ounces. (*See Medico-Chirurg. Trans. vol.* ii. *p.* 440.)

We find a peculiar *diathesis*, or disposition to peculiar disorders, in different individuals, and some have been met with having a disposition to the formation of fatty tumours upon various parts of their bodies. In the *Quarterly Journal of Foreign Medicine, vol.* iv. *p.* 618, there is a memorable instance of this. The patient was a young woman of eighteen, whose constitution was not in any way remarkable. Although very lean, and of the middle stature, she weighed one hundred and sixty-nine French pounds. Between her shoulders were two tumours, eight inches long, and three broad. A third of less size, was situated near the right arm-pit. A fourth arose from the inferior angle of the shoulder-blade, and was fifteen inches long, and six broad. A fifth, lower down, was six inches long, and five broad. The sixth, which was larger than a man's head, was situated upon the right hip. The seventh, a small one, was below the right trochanter major. The eighth, a prodigious one, arose from the left hypochondrium, and hung down as low as the middle of the calf of the leg, being two feet long, and three feet one inch in circumference at its base. All these tumours were of a fatty nature, soft, uneven, and quite unconnected with internal organs, or muscles; and the largest of them weighed, after removal, forty-six French pounds. *Brandish's alkaline solution* should be tried in all such cases.

"The late King George IV. was in the habit, we believe, at one time of his life, of taking large doses of *Brandish's solution* for scrofula."—*Lancet, vol.* i. 1832-3, *p.* 136 For scrophula, however, there is no treatment at all to be compared to a perspiration once or twice a week, by means of the *sudatory*, followed by and accompanied with cold water ablutions, &c.

very simple one—the best way seems to be to cut through the skin and membranous cyst at once into the substance of the tumour; and then the operator is generally able to turn it out with his fingers, the adhesions of it to the surrounding skin being so slight. The source or reason of so much facility in performing this operation is, that the investing cyst or capsule is thin, formed by the simple condensation of the surrounding cellular substance, and adheres so slightly to the swelling, chiefly by means of small blood vessels, which pass through this inverting membrane, that its connections are easily broken, and the tumour detached.

In the *treatment* of small swellings of this kind, or where the patient will not submit even to this simple operation, I advise a trial of *Brandish's alkaline solution*, or the *liquor potassæ*. This has been very useful in some cases, and Sir B. Brodie thinks very favorably of it. He says, (*Lancet*, *vol.* i. 1832-3, *p.* 138,) "You will find the *liquor potassæ* of great service in such cases."

4. I have now to describe the *sarcomatous* tumours of the breast, on which subject, indeed, I shall say but little. There are several kinds of sarcomatous tumours. The simple chronic tumour of the breast is probably what Mr. Abernethy would have called a *common vascular sarcoma*. He describes a tumour which from its resemblance to the *pancreas*, he has named *pancreatic*. It is generally found on that side of the nipple next the arm. When it is indolent, and increases slowly, the surrounding parts, and the glands in the arm-pit are not affected. But some of these swellings deviate from their common character, and become of a very irritable nature, occasioning severe and lancinating pain, and producing an inflammatory state of the skin covering them, so that it becomes adherent to their surface. The absorbents leading to the arm-pit are also irritated, and the glands enlarge. The tumour is softer than a scirrhus, but in this state, it departs from the benign character given to the swellings mentioned in this place, and becomes so severe as to make the patients feverish, and induce the loss of their health and strength.

All that can be done in this case is, to remove the swelling by the ordinary operation, which is almost uniformly successful.

2. OF TUMOURS OF THE UTERUS.

There are tumours occasionally found in the womb both of a tractable and intractable kind, the latter being still different from the scirrhus or cancerous tumour. The generality of such swellings do not endanger life, and are capable of great and sometimes perfect relief from skilful medical treatment. At page 23 et seq. I have referred to some tumours of this nature, and have there adverted to the proper management of them. The chief of the tumours in this situation are of a *tuberculous*, *sarcomatous*, *fibrous* or *bony* character, but from the hidden situation of the womb, they can very often during life be but very imperfectly distinguished, in regard to their exact character.

Whatever may be the anatomical character of the tumour, the prominent symptoms are,—a swelling at the bottom of the abdomen, felt on pressing the hand down on the part, which swelling may also be felt by the usual examination inwardly;—a frequent disposition to make water, and desire to go to stool; a discharge of whites, and cramp in the legs. In some instances, there are frequent discharges of blood, especially at the monthly periods; in other cases, no blood is lost, and the female is quite regular. When the tumour becomes very large, there may be great difficulty in passing both the urine and motions, with a great and painful sense of bearing down. The constitution may remain a long time unaffected, or it may soon feel the influence of the disease.

The form, size, consistence, and attachment of these tumours vary greatly. They are found on the surface of the uterus, or between its muscular and peritoneal coat, or projecting into its cavity, or imbedded in its substance.

There is, I think, just reason to believe, that in these formations we may pretty generally observe a gradual increase in consistence, if not arrested by efficient treatment, from that of the *sarcomatous*, which appears to be the first form, even to the *osseous* or *bony* concretion, which is their ultimate termination. The sarcomatous tumour is that which in general acquires the largest size; while those which indurate quickly are usually

smaller, as if a great and speedy induration wholly arrested any further development.

The *tuberculous* swelling of the womb, sometimes called the *fleshy tubercle*, has been well described by several authors. Dr. William Hunter first described its true character, and Sir Charles Clarke has presented us in his *Observations*, *part* i. *p.* 268, *et seq.*, with a valuable account of it. He says, "In some cases there is only one tumour; in others there are several. Their forms differ very much: they are most commonly spherical or hemi-spherical, but sometimes they take on an irregular shape. When they project into the cavity of the uterus, their surface is smooth; the contrary is generally the case when they form upon the outward surface of the uterus, the tumour having an irregular appearance." It is by no means an uncommon disease. The celebrated French physician, M. Bayle, says, that in seven months he met with fourteen cases.

The fleshy tubercle of the womb has been mistaken for encysted dropsy of the ovarium, and for pregnancy. It is distinguished from the former by being much more resisting on being handled; and fluctuation may in general be felt in the dropsical ovarium, by striking the abdomen gently with the hand, which sensation of fluctuation is wholly absent in the tubercle of the womb. The mistaking this kind of tumour for pregnancy is soon rectified, because when the swelling of pregnancy rises above the brim of the *pelvis*, the child's motion may be felt; the pregnant woman after this increases quickly in size, while the growth of the tuberculous swelling is slow. Sometimes a very inconsiderable growth of this swelling occupies several years. And in referring to the distinguishing signs between this and other tumours found in the womb, and pregnancy, it is necessary to remember that in the latter case, the stomach is affected, and the breasts enlarge and are painful,—changes which do not occur in the case of either of these tumours.

This tumour does not tend either to suppuration or ulceration, and, (which may likewise be said of the other kinds of tumours above noticed,) for a long time the constitution seems little affected, the chief inconvenience arising from pressure on the neighbouring parts.

Sarcomatous or fleshy tumours of the womb not unfrequently

attain to a very large size. They have been found weighing fifty or sixty pounds. Sometimes they are attended with feverishness, tenderness of the part, and quickness of pulse; but generally the ordinary functions of the patient are undisturbed, and this is the case with the other tumours noticed, at least when small.*

Sometimes bony concretions or tumours are found in the womb. Gaubius, a foreign writer, mentions such a case complicated with a falling down of the womb. After a considerable time a large stone was expelled by a violent action of that organ. On the next day a large stone presented at the *os uteri*, which gradually dilated, and allowed it also to pass; and he states, that smaller stones were extracted from time to time, and the patient gradually got well. A remarkable case is also recorded in the first vol. of *Le Journal des Savans*, in which an incision was made into the uterus of a woman, and a calculus extracted, which had existed eight or nine years with extreme agony, after which she recovered—the calculus weighed four ounces.†

Of the *causes* of these different kinds of tumours we know little or nothing.

Treatment. In every case of such tumours as we have now been describing, the indications of treatment are—to soothe the part affected, allay local and general irritation, and where the health is at all impaired to improve it, and invigorate the system. And it must never be forgotten, that although such tumours are found to exist without sensibly or materially

* "Women affected with this disease may die at last from the effects of inflammation of the lining membrane of the abdomen, consumption, or of some affection of the brain, instances of all of which I have known; and in some cases the uterus has been found, upon dissection, very much enlarged from this disease, where little, and in others no suspicion was entertained of organic disease."—*Mackintosh's Practice of Physic, vol.* ii. *p.* 313.

† "A preparation about the size of a turkey's egg has been lately presented to me by a medical friend in Stirlingshire, with the following history: An unmarried woman consulted him about an uterine affection, attended with enlargement of the abdomen, and other symptoms which led him to suspect that she might be pregnant. At the termination of a year or somewhat more, she actually entered into the holy state of matrimony, and became pregnant. She went on to the full period; strong uterine action came on; a hard unyielding substance was felt at the mouth of the womb, which was expelled before the child, and was found to be the calculus sent me. The child was born alive, and the woman made a good recovery."—*Mackintosh's Practice of Physic, vol.* ii. *p.* 328.

affecting the constitution, yet skilful constitutional treatment will, notwithstanding, often be of great service, which is, no doubt, owing in some cases to the difficulty found in detecting constitutional derangement, at least such derangement as seems likely to produce such effects. Some writers refer very much to the ordinary absence of disordered general health in these cases, but this, I think, is a mistake. I have already remarked, that the constitution does frequently *seem* unaffected, but it is not sufficiently considered, that it often requires a practised eye, and a careful attention, to discern the real state of the case, and such attention will very frequently detect unequivocal evidences of deranged secretions, and impaired strength, which have escaped the observation of superficial persons.

We have therefore to regulate the bowels, diet, and exercise, to allay irritation in the bladder and womb, whenever present, and to administer those remedies which are calculated at once to reduce diseased growths, and amend the health. Of the latter the most powerful are *Brandish's alkaline solution*, (prepared by Mr. Watts, 17, Strand,) or *liquor potassæ* and *iodine*. The alkaline solution is the safer medicine, and has sometimes considerable effect, as I have already stated, in reducing the size of tumours, and at the same time improving the health. It may be taken in doses of one or two tea-spoonsful, thrice a day, in milk and water. I have much confidence in it in the present affections. *Iodine* is not so safe a medicine, but it is now and then more powerful. The reader will find its use referred to at pages 23, 52, 105, 114, in this volume, and it may be employed as recommended in either of those places. Sarsaparilla, in conjunction with four or five grains of extract of hemlock, thrice a day, is very serviceable.

Great attention should be paid to make use of a diet of unirritating and easily digested food, and that constantly. Even one error in this respect has often been known to bring back the pain and irritation of which the patient had seemingly been cured: for example, a lady, with a tumour in the uterus, had taken fruit pie and sweet wine at supper, and in the night all her old symptoms returned, although she had been so much benefited by medical treatment as to be nearly free from complaint.

As a palliative to relieve pain and irritation, warm fomenta-

tions may be tried, or gentle friction with warm soap liniment, or a blister may be applied over the region of the swelling; and two grains of Dover's powder with three of extract of hemlock, may be made into a pill, and taken thrice a day. The bowels will require careful attention, and whenever an aperient is taken, it should be very mild in its properties.

Preparations of steel are sometimes indicated in these affections.

In scrophulous habits a scrophulous enlargement of the womb is sometimes met with. These cases are to be distinguished from cancer by the absence of lancinating pain, and by there being no ulceration of the mouth of the womb, nor disposition to it. In these cases much good may be done by the use of the *alkaline solution*, or the cautious employment of iodine and sarsaparilla—the pill No. 22, if given every other night, is also very serviceable.*

OF THE INVOLUNTARY DISCHARGE OF URINE.

Women are not unfrequently subject to involuntary discharges of urine, and as we shall next refer to watery discharges, it is now necessary to advert to these. The peculiarity of the smell will alone, ordinarily, be sufficient to distinguish the urinary from every other kind of discharge, and the passage of

* It may afford some useful hints to at least a few of my readers, if I here remark, that a tumour of a *florid scarlet* colour, with a granulated surface, exquisitely tender to the touch, is sometimes found, shooting up from the inside of the urethra. It is attended by a mucous discharge, and creates great but unnecessary alarm in the minds of women suffering from it. It is common to single and married women, and is met with most frequently in those who have red or light auburn hair and fair complexions. If any violence is done to it, blood of a scarlet colour is effused; and sometimes great pain is experienced in making water, arising most probably from the pressure of the fluid upon the tumour, and the impediment which it may offer to the passage of it.

This vascular excrescence is removable either by ligature or the scissars. The scissars are to be preferred, provided the constitution is not very irritable, and after its removal by them, the part from which the excrescence arose should be touched with caustic, and the *potassa cum calce*, or *the chloride of zinc* (p. 36) applied once lightly, will be more efficacious than repeated applications of the nitrate of silver. The daily passing of a bougie into the bladder, for some time after the extirpation, is of service.

urine over the skin covering the inside of the thighs, usually produces much more heat, redness, and inflammation of those parts than other watery discharges.

When the pelvis and the cavity of the belly are encroached upon by any large tumour, there will be no space for a full bladder; and, therefore, at the close of pregnancy, and in other kinds of enlargements of the uterus, the bladder will be capable of containing small quantities of urine only; and in every sudden and strong contraction of the abdominal muscles, as in coughing, laughing, &c., a part of its contents will be expelled. For this case there is no remedy; but sponges sewed into the folds of a napkin should be constantly worn; and the neighbouring parts may be defended from the irritating action of the urine by anointing them with a cerate composed of two ounces of spermaceti ointment and two drachms of lead plaster *(emplast. plumb.)* mixed together.

In those cases of constant discharge of urine, arising from loss of tone, perhaps from general debility or a tedious labour, (and where the patient is not pregnant, nor has any disease of the womb,) relief is to be sought in those means which give local and constitutional strength. The cold shower bath—or free ablutions with cold water, must be used every morning on rising, and the cold hip bath daily about twelve o'clock, for ten minutes. Decoction of bark, or the quinine and mineral acids, should be tried internally thrice daily; and if these fail in producing the desired effect, fifteen, twenty, or thirty drops of the tincture of cantharides may be taken, twice or thrice a day, in mucilage. Blisters applied to the *sacrum* are sometimes useful, and so is electricity.

When all these plans fail, recourse must be had to mechanical means of compressing the *urethra*, thus enabling the patient to retain the urine. The introduction of a globular pessary of a large size into the vagina may, by its pressure against the back part of the orifice of the urethra, effect the intended purpose; and, when the bladder becomes full, the pessary may either be removed by means of a noose of silk attached to it, or if the patient has any difficulty in accomplishing this, it may be pushed back by the finger. Another contrivance is, that of a small steel spring, (similar to that used to confine letters,) covered with soft leather, one part of which may be introduced

into the vagina, so as to press on the back part of the orifice of the urethra, whilst the other end of the spring lies upon the very lowest part of the belly.

When the mischief has arisen from laceration or sloughing of the parts, the patient may be much relieved by the insertion of a large thin globular pessary, made of wood or silver, perforated by a great number of holes, capable of containing a large piece of sponge: at the lower part of this pessary there should be a circular opening, through which sponges may be removed occasionally; and for this purpose, a piece of string may be attached to the sponge, which, being emptied of the urine contained in it, may be again introduced into the cavity of the pessary, without the removal of it.

Those who are subject to incontinence of urine will act wisely in being very cautious in respect to the quantity of fluid they take, especially of such fluids as are much disposed to act on the kidneys, for example, those which contain any portion of juniper, turpentine, nitre, cream of tartar, &c.; and the feet and body should be fully clothed, and kept warm, in order to diminish the determination of blood to the interior. This class of patients are found to suffer less from their disease in summer than in winter, which is only explicable on this principle.

OF WATERY DISCHARGES FROM THE WOMB.

Under this head are comprehended those discharges which resemble *clear water*, *having for the most part no colour*, and which *contain very little glutinous matter;* sometimes none at all. These discharges are usually in large quantity, the patient often appearing as if drenched with water. There are two very particular conditions of the internal organs of women, which are attended by a watery discharge, viz.

1. THE CAULIFLOWER EXCRESCENCE OF THE OS UTERI, OR MOUTH OF THE WOMB.
2. HYDATIDS OF THE WOMB.

1. THE CAULIFLOWER EXCRESCENCE OF THE OS UTERI

Is an important disease, both on account of its nature and treatment, and from its being very often mistaken for other

complaints. It appears to have been first noticed by the late Dr. Clarke,* and is an excrescence of the appearance of the upper surface of a cauliflower, granulated, consisting of a great number of small projections, having a membrane, very fine in its texture, spread over its surface, and from this membrane is poured out the watery secretion by which the patient is often so much annoyed. The excrescence is of a bright flesh colour,† and if the investing membrane is injured, the blood vessels give way, and thus now and then blood tinges the watery discharge, and gives a shade of colour to it, and perhaps a faintish odour; but when no blood is mixed with it, there is little or no smell.‡

This discharge, being unattended by pain or fœtor, is at first disregarded by the woman, until at length a quantity of blood coming away with it, or the patient finding the colour of her cheeks fading, or the strength of her frame diminishing, *she takes alarm*, and seeks advice. As the disease proceeds, the stomach partakes of the general weakness, the digestion is impaired, and the patient is afflicted with flatulence, hysterics, swelling of the feet at night, and puffiness of the face and eyelids in the morning.

The *causes* of this peculiar affection are not known. Both married and single women, and at all ages after twenty, are liable to it. It is readily ascertained by an examination *per vaginam*. The excrescence is not endowed with sensibility, the patient never complaining when pressure is made upon it: it is attached to the surface of the mouth of the womb, and to that alone, as it never can be traced into the cavity of that organ.

* In *Trans. of a Soc. for Promoting Med. and Surg. Knowledge, vol.* iii. *p.* 321. *See also Sir C. M. Clarke's Observations, part* ii. *p.* 57, a work of uncommon merit, and to which I am indebted for many of my present remarks and directions.

† "As the tumour occupies the upper part of the vagina, it is of course in the greater number of instances concealed from view; but in three or four cases, in which the size of the tumour was so large as to fill the whole canal, and to protrude externally, the author was enabled to see the disease, and the colour of the tumour was found to be that which may be called a bright flesh colour."—*Clarke on the Diseases of Females, part* ii. *p.* 59.

‡ "It has been observed above, that arterial blood escapes from the tumour when injured: indeed the tumour appears to be made up of a congeries of blood vessels, and these blood vessels are arteries; the infinitely small branches of which, terminating upon the surface of the tumour, exhale in the most abundant manner an aqueous fluid."—*Clarke on the Diseases of Females.*

Its growth is sometimes rapid: but the enlargement is much influenced by the power of contraction in the vaginal passage; so that when this canal is very dilatable, as in women who have borne many children, the excrescence will quickly increase in size; whereas, the pressure of the sides of a less capacious vagina, as in single women, will greatly tend to control its enlargement, acting like a bandage upon it. These circumstances, of course, will influence our *prognosis*, and the knowledge thereof be turned to advantage in the treatment.

Treatment. The object is to diminish the size of the blood vessels of the swelling itself, and also to diminish the action and fulness of the blood vessels of the neighbouring parts. If this can be accomplished, the size of the excrescence will lessen, and the patient's condition be materially improved; but if the symptoms be disregarded, it will increase, and may prove fatal. The management of the patient chiefly consists in local blood-letting from the *sacrum* or hips, by means of the cupping glasses; daily gentle exoneration of the bowels; the application of cold fluids to the outside of the belly, and the injection of them into the cavity of the vagina; the recumbent position, and constant rest, when not taking that exercise which is requisite for the health.

The quantity of blood drawn must be determined by the size and degree of resistance in the tumour, the quantity of watery discharge, and the strength of the patient. In strong women, twelve ounces of blood may be drawn by cupping, it being repeated in three or four weeks; in women of less strength of constitution, half that quantity will be better; and should much swelling of the feet be present, and other symtoms of great debility, no blood should be drawn. Cold water should be applied freely by a sponge, several times a day, to the lower parts of the belly, and cold water should be, once or twice a day, injected into the *rectum;* and one of the injections No. 12, 13, or 14, (to be seen at the end of this volume,) thrown up the passage carefully: or, should the vagina be very irritable, the injection may be composed of equal parts of decoction of oak-bark and linseed tea, which is less irritating.

At the same time, all local and general stimuli must be avoided. In the beginning, the diet must be of the mildest kind, such as light puddings, white fish, sago, and vegetables;

and subsequently great attention must be continued to this point. Wine should be absolutely proscribed, and the patient, if married, must for ever leave the bed of her husband. Discharges of blood are apt to follow costive motions, and therefore the bowels must be regulated daily.

But the patient may have been greatly exhausted in strength before the disease was discovered, and then, together with the employment of such parts of the preceding plan as we can have recourse to, it will be necessary to give some light tonic, especially the muriatic or sulphuric acid. Five drops of the former may be given, thrice a day, in eleven drachms of distilled water, and one drachm of syrup of orange peel; or six drops of the latter in an ounce and a half of infusion of roses, three drachms of carraway water, and a drachm of simple syrup.

By these means, the state of the patient will be rendered comfortable, in a great majority of instances: but cases may be encountered where no check can be imposed upon the discharge by such measures, and then the ligature, and that alone, holds out a prospect of relief. This must be done by an able person, the operation being the same as in polypus of the womb, still more care being used than in the operation for polypus.

The following case, (taken from *Sir Charles Clarke's Observations*, *part* ii. *p.* 106,) was successfully treated, and will further instruct the reader in the employment of the proper means.

"A lady, apparently about two and thirty years of age, laboured under a continued profuse watery discharge, mixed occasionally with blood: her constitution appeared greatly weakened, she became very pale and emaciated, and, together with a slight degree of swelling of the ankles, she was liable to great palpitation of the heart and shortness of breath. As her weakness increased, she sought relief from tonics and a stimulating diet, under which plan the disorder increased. An examination being made, a mass was found to project from the surface of the mouth of the womb, from which a quantity of blood issued when it was pressed by the finger. Fainting took place in consequence of this discharge of blood, although the quantity was very trifling. The tumour had no regular form, and, as far as the author could ascertain, the whole of it could have been contained in half a walnut shell.

"The patient was desired to confine herself strictly to the sofa, to use cold water in a lavish manner to the pelvis, and to throw a strong astringent injection into the vagina; she was directed to give up the use of wine,

to live upon farinaceous food and vegetable jellies, and to lose five ounces of blood from the *sacrum* by cupping, when she had recovered from the effects of her journey to the author's house.

"Some weeks elapsed before the author again saw the patient; the watery secretion was considerably lessened, and the bloody discharge had entirely ceased: the ankles were no longer swelled, and the general health was improved. The patient was desired to repeat the cupping, and to continue the former system of management. Once in about six weeks or two months the author had seen the patient, who had followed up the same mode of treatment, occasionally losing some blood from the *sacrum* by cupping.

"At the termination of about two years from the time at which the author first saw the patient, and after an interval of three or four months, she again called upon him, when, so great was the improvement in her appearance, that he hardly knew her. There had been no watery discharge during many months, and the menstruation which had been interrupted by the weakness of the frame, had now become perfectly regular; the only medicine which had been taken during the latter part of this period, was half a drachm of powder of bark twice a day. As the case was altogether a very extraordinary one, it became very desirable that an examination should be made. The vagina was so much contracted by the continued use of the astringents, that it admitted the finger with difficulty; on carrying the examination further, no difference could be felt between the mouth of the womb of the patient and that of a woman in perfect health. Such are the facts of this case: in reviewing it, every one conversant with diseases of the uterus must acknowledge that it was very extaordinary in its termination. No mystery of treatment hangs over it; very little medicine was given, except what has been mentioned: a few grains of henbane or hemlock to allay irritability, a little Epsom salt to regulate the bowels; and when little else than weakness remained, a few drops of tincture of muriated iron twice a day. To the local blood-letting, the horizontal posture, and the use of astringents, then, must be attributed the removal of this disease, which had all the characters of the cauliflower excrescence."

The patient should remember, that it is not every case of this disease which terminates so favorably as the preceding, and therefore the utmost attention must be paid to the use of the proper measures, and they must be persevered in for a long time.*

* Now and then a milder kind of watery discharge is met with, where there is no cauliflower excrescence, which may be cured by astringent injections, cantharides or balsam of copaiva.

2. THE HYDATIDS OF THE WOMB

Are small vesicles, containing a limpid fluid, sometimes met with in the cavity of that organ. They vary considerably in size, being sometimes equal to a large grape. As their number increase, the cavity of the womb becomes more capacious; and when, at length, the womb has acquired a large size, it seems to be offended by its contents, and contracts upon them. The patient frequently suffers from retention of urine, owing to compression on the orifice of the bladder; costiveness, from compression on the rectum; and swelling and cramp of the lower extremities, from pressure on the absorbents and nerves. The menstrual fluid is usually suppressed; and in the advanced stage of the complaint, a process resembling labour commences; the mouth of the womb is dilated; the hydatids are partially expelled by periodical pains, and then danger presents itself from the alarming hæmorrhage. This is very frightful when the hydatids spring from every portion of the uterine cavity.

The *cause* of this malady has not been ascertained. From its frequently existing in connection with a dead *ovum*, that is, a conception which proves abortive, some have attributed their origin to this circumstance, whilst others consider the death of the *ovum* to be the consequence of the existence of the hydatids. The symptoms are those of pregnancy, and there are, *in the beginning*, no signs by which to distinguish certainly between the presence of hydatids and the occurrence of pregnancy; for although the fœtus dies at an early period, yet the hydatids continue to increase, and no suspicion is for some time entertained with regard to the true nature of the disease. It is, however, to be distinguished from advancing pregnancy by the breasts becoming flaccid, by the absence of the sensation termed quickening, and by sudden discharges of a limpid fluid resembling water.*

* In the *Hist. of the Acad. of Sciences for* 1714, is the case of a woman who happened to fall in the third month of pregnancy. The belly, however, increased in size till the fifth, and then began to lessen. In the sixth she was delivered of a bag, as large as the fist, with a *placenta* and *fœtus* of the size of a kidney bean. In this case hydatids were not formed: but in the History of 1715, is a case, where the woman falling in the second month, had the *ovum* converted into hydatids, which was expelled in the tenth month. As hydatids often succeed to genuine pregnancy, the symptoms may, at first, be exactly the same with those

The *diagnosis*, or means by which we distinguish it from other diseases of the womb, which may have many symptoms in common with it, consists in the discharge of an almost colourless and inodorous watery fluid, *which is extremely irregular and sudden in its appearance and cessation;* being produced by a rupture of one or more of the coats of these hydatids, in consequence of the occasional contraction of the uterus upon them, or by any sudden violence, as in coughing or sneezing. This irregularity distinguishes it from the discharge from the cauliflower excrescence, which being a secretion from its surface, is for the most part constantly escaping.

Treatment. The natural termination of this disease consists in the expulsion of the hydatids, in consequence of the contraction of the parieties of the womb, which are irritated by the distension of its cavity; and no means hitherto discovered will cure the disease artificially, or arrest its progress towards the natural termination just referred to. We are therefore called upon to watch the symptoms as they arise, and to treat them as their nature demands. At the period when the womb is striving to unload itself of its contents, the great indication is to endeavour to control the bleeding, which we must attempt by keeping the patient perfectly quiet in the horizontal posture; by interdicting all stimulating food and drink, and by resorting to cold applications, such as cloths dipped in vinegar and water, or an iced water, to the loins, belly, and external organs. Sometimes, after the use of these, the application of a bandage round the abdomen proves very useful, by exciting the womb to a proper contraction whereby the hæmorrhage is arrested.

Should the bleeding continue or return notwithstanding the employment of these means, some hydatids remaining in the

of pregnancy, nay, even motion may be felt, but afterwards the child may die, and hydatids form. Mr. Watson, in the *Philos. Trans. vol* xli. *p.* 771, gives a case where there was, for a long time before the expulsion of hydatids, a quantity of blood discharged every night; pains at last came on, and expelled many hydatids. In this case, the symptoms of pregnancy were evident from November to February.—*Burn's Midwifery*, 1832, *p.* 122.

Vigarous, Malad. &c. tom. i. *p.* 385, observes that he knew an instance where the woman discharged hydatids always when she went to stool. He must mean for a certain period. Mr. Mills relates a case (*Med. and Phys. Journal, vol.* ii. *p.* 447) where the woman betwixt the second and third month, had symptoms of abortion, and afterwards, in the fifth or sixth, expelled above three pints of hydatids.

womb may be the cause of this, and then the expelling process may be materially assisted by introducing the hand, or even two or three fingers, into the womb, and carrying it up between the sides of the womb and the hydatids, which are to be detached from the part to which they adhere by the most gentle efforts.*

After the hydatids have been expelled, and the bleeding has been restrained, a mild nutritious diet must be allowed, and small doses of quinine and the mineral acids may be administered with advantage. The patient must for some time be *very cautious* with respect both to moving and exposure.†

Sometimes the womb is distended by a single large hydatid to a very great size, and the remarks already made in regard to treatment are likewise applicable to this case. But here the disease usually terminates with much less loss of blood, and without the occurrence of those distressing symptoms, which seem to endanger life, in the form above described. Dr. Burns says, (*Principles of Midwifery, eighth edit. p.* 125,) this variety of the large solitary hydatid of the womb, "is oftener combined with pregnancy, or with a mole, than met with alone. The first combination is not uncommon, and I have seen the hydatid expelled some weeks before labour. Hildanus gives an instance of the second, where the *ovum* was converted into a mole intimately connected with the uterus, and complicated with a collection of fluid to the extent of six pounds. In this case so much irritation was given as to exhaust the strength, and produce local inflammation. It may also happen that many small hydatids may be discharged, and yet pregnancy may go

* "The surgeon recollecting always, in the performance of this operation, that the degree to which the mouth of the womb is dilatable without laceration is in proportion to the size of the whole womb, both in pregnancy, as well as in this disease. So that, supposing the womb in this disease to be enlarged to the size of that viscus in the sixth or seventh month of pregnancy, the whole hand of the operator may be, if necessary, introduced through the neck; whereas, in smaller dimensions of the womb, if any attempt is made to introduce *the whole hand* through the neck, however carefully it may be attempted, a laceration of it may ensue, and thus the patient may be involved in a new danger."—*Clarke on the Diseases of Females, part* ii. *p.* 123.

† "In regard to our *prognosis*, this, where there is a cluster of hydatids, may be favorable; for the author has not only seen the most perfect recovery, but he has known individuals conceive soon after the expulsion of such productions."—*Campbell's Midwifery, p.* 452.

on to the full time. A case of this kind is mentioned by M. Thuillier, where discharges took place from the middle of pregnancy till the end, and at one time there were some bearing-down pains, but no dilation of the mouth of the womb."

Although I have remarked, that no means hitherto discovered will cure this disease artificially, or arrest its progress towards its natural termination, yet it may hereafter be found that *iodine* is capable of accomplishing valuable purposes in its treatment. I am not aware that it has yet been tried in this affection, but from the powerful influence it exercises on the uterine system, it promises much, if not as a curative agent, yet as so lessening the size of the hydatids and their vessels, as materially to lessen the hæmorrhage usually witnessed in the disease, and which is the source both of distress, and danger, to the patient. The ergot of rye appears to have been used with success in America.

A spontaneous cure appears to have taken place occasionally in a very favorable manner, thus a practitioner of the last century met with the case of a lady who went into a pastry-cook's shop, and sat down in the parlour; the discharge of water, which she felt, increased, till the whole shop was deluged, and very unpleasant conjectures were the consequence. In another case, the patient was riding in a coach, which being driven over a rough pavement, caused the weak membrane to give way, the whole fluid escaped, and the patient was favored with a spontaneous cure.

Some professional men have referred it to dropsy of the womb,—but the most experienced of the profession rightly consider this to be almost impossible, and that every case of collection of water within that cavity, is owing to the presence of hydatids.* An interesting example of this, so called, dropsy

* There is a *third* particular condition of the female organs, attended by a watery discharge. It is not a frequent complaint, but its being briefly described here may be of use to some of my readers. Sir Charles Clarke calls it the oozing tumour of the labium, and a fuller account of it may be seen in his *Observations, part* ii. *p.* 129.

The oozing tumour of the labium, or external part of the female organ, is a swelling in the labia or folds of skin and cellular substance at the entrance of the vaginal passage. It is seen externally, its surface being unequal, consisting of irregular depressions and eminences, from the former of which the fluid oozes in

of the womb is given in *Dr. Kennedy's Observations on Obstetric Auscultation, p.* 179. It is worthy of notice how closely the symptoms simulated pregnancy.

"It occurred in the person of a confidential attendant of Lady ——, whom I was desired to see by the late Dr. Evory. She was reported to be in a very dangerous state, from a labour of nearly three days continuance, which had not then terminated. I found her exhibiting all the appearance of a woman worn out with long continued and unavailing labour, her pains recurring at irregular intervals, and she herself much exhausted by the force and exertion used when they were present. Having passed my hand over the abdomen, it did not give the idea of that of a woman in tedious labour, as, although it was certainly very much distended, fully as much so as that of a pregnant female at the ninth month, yet the body or limbs of the child could not be discovered. The swelling was circumscribed like that of an enlarged uterus, and an obscure fluctuation was observed. I directed her to be put into a warm bath, and gave her some calomel and jalap, which operated in a couple of hours. Whilst she was straining at stool, a sudden discharge of a reddish-coloured watery fluid poured from the vagina; and the mouth of the womb was found slightly gaping. No solid substance whatever came away," although a discharge of watery fluid continued for some days.

OF THE IRRITABLE WOMB.

All the organs of the body are subject to a peculiar irritation or irritability, apparently very much connected with their nervous conditions, that is, the state of their respective nervous

considerable quantity, occasioning soreness and excoriation. It appears in fat women after the middle period of life.

Sir Charles Clarke says, (*Observations, part* ii. *p.* 132,) "At first sight the complaint may be mistaken for that form of erysipelas which is denominated shingles; but upon a more careful inspection, it will be found that the projecting parts are solid, and that they do not, as in the disease called shingles, contain a fluid. The trifling degree of vitality which the labia in some cases possess, render them liable to attacks of erysipelas, and therefore the practitioner should be careful in discriminating between the two diseases."

Treatment. The patient suffering from this complaint requires a nutritious diet, with a little wine, and general attention to the improvement of the health, and invigorating the body. At first, we may give full doses of sarsaparilla, twice or thrice a day, and afterwards a little quinine will often be useful. Local applications are frequently of great service, especially common starch powder freely sprinkled on the parts, or strong new port wine used as a lotion. Cold water is a very soothing application, but if the foregoing means fail in checking the discharge, and making the patient more comfortable, spirit of wine is worthy of trial, being sometimes of uncommon service.

systems. Thus we frequently meet with the irritable stomach, heart, bladder, &c. Some organs are peculiarly liable to this irritability, and it produces great effects on the whole system, such are the bladder, stomach, and womb. A distinct article on *the irritable bladder* will be found in the author's MODERN DOMESTIC MEDICINE; *the irritable stomach* is likewise noticed therein; and here we shall treat of the *Irritable Womb.*

By this term is signified a painful and tender state of the womb, sometimes not attended by, nor strongly tending to produce, change in its structure, at least, any appreciable change of structure. The principal *symptoms* are, pain in the lowest part of the belly, along the brim of the pelvis, and in the loins; tenderness of the womb on examination, and pressure with the finger, but no other change of consequence; the pulse is for the most part natural, though easily quickened by the slightest emotion; the countenance is not altered in the beginning, but the general strength is less than the appearance indicates. The bowels soon become constipated, and symptoms of weakness of the stomach are present, from sympathy with the womb. The pain is worse when the patient is up and taking exercise, and in this respect it resembles *falling down of the womb*, but there is this difference, that in the latter, if the patient lies down, she soon becomes quite easy; but in the irritable womb, the recumbent position, although it diminishes, does not remove the pain. It is always present in some degree, and severe paroxysms often occur, although the patient may have been lying down for a long time. The patient, finding her pain much increased by rising and walking, soon learns to relieve herself by lying on the sofa, and at length, if the case is a severe one, spends nearly her whole time there.

To embody the *symptoms* in one view, the reader may picture to herself a young or middle-aged woman, somewhat reduced in flesh or health, almost living on her sofa for months or even years, from a constant pain in the womb, which renders her unable to sit up and take exercise; the womb, on examination, unchanged in structure, but exquisitely tender; even in the recumbent position, almost always in pain, but subject to great aggravations more or less frequently.

Any thing which makes a great and sudden impression on the uterine organs may give rise to this complaint, and it has

been *caused* by a very long exhausting walk during the menstrual period—by too great freedom in going abroad immediately after a miscarriage,—by standing for several hours many successive nights at parties,—and by the use of a cold astringent lotion, which suddenly stopped a profuse discharge after delivery.

In many cases of this disease, the patients have shewn a predisposition to the complaint, from the pain they have previously suffered at each monthly period.

Some physicians have considered this affection as one of *function*, not a disease of *structure*, and have denied the presenee of chronic inflammation; but it is not so purely one of function only as they imagine. I have no doubt some degree of inflammation exists, perhaps in all cases.

A great deal has been said and written upon the remote or predisposing cause of the irritable uterus, since a great obscurity is generally thought to envelope this subject. Accordingly some have described the remote cause as of one kind, and others of another, and again other writers have regarded the matter as inexplicable. All this arises from its being forgotten that we cannot reasonably expect to know any thing of the remote or predisposing cause of such a complaint, beyond the fact of its being some inappreciable peculiarity in the structure of the womb. A dozen females or more may meet with an injury to one of the knee-joints, producing chronic inflammation, and its ordinary troublesome consequences, but one only of these perhaps will be severely tried, for a long period, with a neuralgic fixed pain in the knee, similar to what we have to encounter in the irritable uterus. Why is this? How is it that in this single instance such an extraordinary consequence *of the very same injury* ensues, entailing uncommon suffering for a lengthened period, while in all the other instances the consequences are ordinary, and the recovery progressive and speedy? The only answer which can be given is, we know not—it can only arise from some peculiarity in the structure, or mode of vital action, of the part affected, which is altogether inappreciable to our senses even on the minutest anatomical examination. So it is here. We cannot, in the physical nature of things, reasonably expect to be acquainted with such differences in the condition or vital action of the

uterus as lead to this difference of result in different instances. Many women suffer pain and irritation in this organ as a consequence of exhausting walks—imprudence after miscarriage—by standing long, &c. who never have such a disorder follow as the *irritable uterus.*

This complaint is distinguished from those diseases which seem to resemble it, by the symptoms already described. It is not an acute inflammation of the womb, for that runs a more rapid course,—this complaint often continues for months or years; it is not *ordinary* chronic inflammation, in which the pain is not so constant, especially on carefully observing the recumbent position, and the use of proper remedies. It seems in many cases to be dependant on a diseased or unhealthy condition of the nerves of the part, similar to what is found in the irritable breast, and in irritable joints.

It is possible to confound the irritable womb with prolapsus of the organ. In making the necessary examination to ascertain the real nature of the case, the following precautions will afford us material aid to a correct decision. After the patient has placed herself on her back with the knees drawn up, let the parts be well lubricated, that no pain may be excited by the introduction of the finger, lest a wrong conclusion be drawn from the complaints of the patient. After the finger has possession of the vagina, a gentle search should be made for the neck of the womb; and when found, the patient's attention should be solicited to the degree of sensation produced by touching it,—the portion of the body of the uterus immediately above the neck, and the sides of the vagina;—inquire if there be any extraordinary sensibility in either of these parts; and if there be, in which of the parts it resides; and if either of these parts be morbidly tender, the pessary must not be introduced until this has been abated by suitable means. In this case the patient will be labouring under *irritable uterus,* and not a simple prolapsus.

The present malady is not unfrequently complicated with *prolapsus* of the uterus; if so, the prolapsus must be skilfully treated, as we have advised, by the use of the pessary or spring truss, or the patient will not recover.

Treatment. The indications are, to relieve the pain, and to re-establish the general health. The remedies for subduing

the pain, are the horizontal position, anodynes, warm or cold bathing, local blood-letting, and counter-irritation. The recumbent posture must be *very carefully observed* through the day, excepting when taking an airing in a very easy carriage.* Cupping on the upper part of the *sacrum*, or drawing blood by leeches from the lower part of the belly, or the inner and superior part of the thighs, will generally afford great relief, and this must be proportioned to the strength of the patient, and regulated also by its effects. The anodyne pills No. 33, or No. 34, are very suitable, and may be taken three or four times in twenty-four hours; and sometimes an anodyne injection into the rectum is very useful, as No. 4. In conjunction with these, the alterative pill No. 22 may be taken every night, with great advantage in many cases. Plummer's pill also is valuable as an alterative. The Dover's powder is a useful medicine in relieving pain in this complaint.

The hip-bath at eighty or ninety degrees may be tried every night, or every other night, and will often prove useful; but if it affords no perceptible relief, or should increase the langour and debility of the patient, it must be wholly discontinued. The partial steam bath, that is, exposing the belly and lower limbs to the action of steam for half an hour every day, is sometimes more efficacious than the common warm bath.

The tartar emetic ointment, or a blister frequently applied to the top of the *sacrum*, will aid us much in some cases; and in every instance, the bowels must be regulated by the mildest aperients, or by a clyster of warm water or gruel. The electuary No. 9 is a very suitable aperient here.

I place considerable dependance on the virtues of sarsaparilla in this disease, and it may be tried in the form of powder, extract, concentrated decoction, or Moxon's essence, as I have directed in the MODERN DOMESTIC MEDICINE, and also in several places in this publication. Should the stomach and bowels be much disordered, the dandelion may be united with

* The medical man should in the treatment of this disorder "be well aware of a truth, proved by multiplied experience—that no affection brooks trifling with so bad a grace as the *irritable uterus;* and that all departures on the part of the patient from prescribed rules, is almost sure to be followed by penalties, much beyond the seeming importance of the trespass."—*Dewees' Diseases of Women, p.* 320.

it, and in all cases the pill No. 22 may likewise be taken at night. The diet should be nourishing, but small in quantity, and when the patient can bear it well, change of air is advisable. The air and water of Tunbridge Wells have been very useful in several instances; in others I would recommend a trial of the Brighton German Spa Waters, especially the water of Kissengen, or Marienbad.

Should the preceding means not succeed, the patient may probably take the alkaline solution, or *liquor potassæ*, thrice a day, with considerable benefit. Another medicine which promises to be useful is the buchu leaves in free doses.

The *ioduret of iron* will probably be very beneficial in some cases of this malady, but I cannot say, that I have yet either tried it myself here, or known it to have been actually of service under the direction of others. I have heard of a case in which the carbonate of iron succeeded in curing the patient; and am convinced that often too little regard is paid to the general invigoration of the patient, in the attempts made to cure this malady—the efforts are not directed with sufficient vigour and discernment to make an entire change in the constitution. This pain is frequently the consequence of morbid changes in the general habit, and then we must operate beneficially on the whole system if we would do our patients great and lasting good. Such cases are not so much local as they appear to be, and cannot be successfully encountered by mere topical, or by any ordinary, remedies. We must endeavour to find out the exact condition of the general health of the patient, and skilfully apply our remedies accordingly.

It must be carefully noted that many patients suffering from irritable womb cannot bear the abstraction of blood, especially general blood-letting, and we must be cautious in drawing off this precious fluid, particularly where debility is present. If an examination detects a very inflamed and engorged condition of the mouth of the womb, the application of leeches to the orifice of the uterus is sometimes peculiarly beneficial, since the swollen vessels are thereby more immediately and perfectly relieved, than by any other mode of abstracting blood. This method is in common use on the continent,—the leeches are put into an ivory tube, furnished with a piston, and introduced so that the extremity reaches the top of the vagina. The

piston is then pushed forwards. The leeches in general fasten immediately, and become filled in the course of a few minutes, when they make their escape. The patient is to sit upon a pot, containing boiling water, to encourage the bleeding, which is readily suppressed upon lying in the horizontal posture. An interesting case relieved by these means is related by Dr. D. Davis, in a paper on *Hysteralgia.*

Mrs. S——, a very delicate woman, of about thirty years of age, and the mother of a numerous young family, had been the subject of much uterine irritation for about eight months, for the relief of which nothing very efficient had been done. This physician was called in, and, on examination, the neck of the womb was found exceedingly painful and considerably swollen; but without structural disorganization. The patient was very thin, pale, and spiritless. The case was reported as one of no urgent danger, but, nevertheless, one involving some ultimate risk if the symptoms present, which were represented as those of a peculiar variety of inflammation, could not be subdued. Four leeches were applied directly to the orifice of the womb, and the quantity of blood thus obtained was at least ten ounces, the abstraction of it being almost immediately followed by the happiest results. After a suitable treatment in other respects for about three months, during which the application of four or six leeches were repeated four or five times, the patient was left in a state of comparative comfort, being almost wholly delivered from the distressing pain of the uterus which had recently embittered her existence, and in other respects rapidly recovering her former health and strength.

Dr. D. Davis considers the *irritable uterus*, as a consequence of inflammation, and has made the following judicious remarks on the subject:—"It is well known that the uterus is not unfrequently the subject of very painful states, occasioned exclusively by functional causes, as we see constantly exemplified in cases of disordered menstruation, *fluor albus*, &c.; but does it necessarily follow, that such morbid conditions are essentially independant of all inflammatory action? or rather is it not demonstrable that of some of them, at all events, inflammatory action is an essential attribute? And yet we find that such painful states, such demonstrably inflammatory affections, may be sustained for many years without producing malignant disorganization of structure. The limits subsisting between the phenomena respectively of irritation and inflammation, are not yet established with sufficient precision to enable us to determine with perfect confidence under which of these heads some doubtful forms of disease should be classed. Many diseases,

loosely attributed to irritation alone, are often characterized by symptoms which a more accurate diagnosis would enable us at once to ascribe to actual inflammation."

A skilful use of the *hydropathic system* (see the end of this volume) will probably in many cases perfectly succeed in curing the patient, after all other means have failed. I do not recommend the German system, or German practitioners,—they and their system are not deserving of the notice they lay claim to—but an enlightened mode of using those parts of the system which are appropriate to the case, is worthy of the attention and strongest confidence of the patient.

OF INFLAMMATION OF THE WOMB.

I have described the symptoms, and directed the proper treatment, both of *acute* and *chronic* inflammation of the womb at p. 48 et seq. but have a few additional remarks to offer here on these subjects.

It should be particularly noticed, that a characteristic of the *acute* attack is violent and bearing-down pains in the lower part of the belly, coming on in paroxysms; there is a frequent desire to pass stools and urine, and great tenderness on pressure made over the bottom of the abdomen. The breasts are sometimes retracted and painful.

Exposure to high winds, and the fatigue arising from long walks, during menstruation, are *common causes* of this complaint.

The *chronic* form of this disease often passes a long time undiscovered, the patient mistaking it for *whites*, or merely a derangement of the menstrual functions. Some writers describe it as generally a sequela of an acute attack, but this appears to me to be incorrect. It does sometimes follow an attack of acute inflammation of the organ, but is commonly an original affection; and may be induced by deranged general health, more especially under slight inattentions to necessary precautions at the monthly periods, and in females constitutionally disposed to uterine irritation.

The pain or uneasiness is much aggravated by bodily exertion, but is generally relieved by perfect rest—which is said to form a distinguishing mark between this affection and the *irri-*

table womb, in which rest does not usually afford relief, although exertion is sure to aggravate the sufferings.

The best *treatment* consists, I think, in taking a little blood from the loins by cupping, regulating the bowels by mild medicine, as *beaume de vie*, and giving the pill No. 22 or Plummer's pill every night, with the hemlock and Dover's powder pill (page 158), thrice daily. At the expiration of a fortnight, I should probably recommend the pill No. 22 to be taken only every second night, and to try the effects of equal quantities of the powder of sarsaparilla and whortleberry, in water, beginning with half a drachm of each thrice a day, and gradually augmenting the dose to two scruples or a drachm. This plan may be persisted in for one, two, or three months, if necessary, uniting with it the occasional use of the warm bath, gentle exercise in the open air, and a very careful diet of the most digestible food. Genuine *balsam of copaiba* is sometimes a very useful medicine here, and so is the buchu leaves, particularly if given after the adoption of the treatment just advised; and there can seldom be any objection to the employment of a blister or the tartar emetic ointment, over the lower part of the belly. In some instances, these local applications prove powerful auxiliaries to the constitutional treatment.

The cold hip bath is a remedy of considerable power in this complaint—and so is the wet bandage round the loins with a dry one over it. See the end of the volume.

Some females suffer much at times from pain and uneasiness *low down*, (with or without a discharge), probably from a very imperfect kind of inflammatory action in the womb, in which case, if the preceding means fail to relieve or cure the complaint, they should try the juice of the *galium aparine*, or goose grass—the dose is two or three table-spoonsful twice a day. Indeed this is an admirable medicine in almost all swellings in and discharges from the womb; and I have the greater pleasure in recommending it because it may easily be procured by the poorest in the land. The juice of the *tussilago* or *coltsfoot* is another efficacious medicine in such maladies—the dose being the same as that of the *galium aparine*.

THE GERMAN MINERAL WATERS

Attract at this time a great deal of attention in this kingdom, and the following account of them has been drawn up by Dr. Struve, a very experienced German physician and able chemist, and may therefore be relied upon for its correctness. These waters are very useful remedies, but, like every thing else in this world, they are often ill understood, and frequently altogether disappoint the hopes and expectations of those who eagerly visit the springs. There can be no doubt we have waters quite as efficacious in our own country; but it is difficult to persuade mankind that what they have near their own door can be so excellent as that which is to be found five hundred miles off, or that what they may procure for a few shillings can be so valuable as that which costs them very many pounds.

I. WARM MINERAL WATERS.

THE SPRINGS OF CARLSBAD,

VIZ. THE SPRUDEL, NEUBRUNNEN, MUEHLBRUNNEN, AND THERESIENBRUNNEN.

Carlsbad water operates chiefly on the intestinal canal and abdominal viscera, augmenting all the secretions and excretions. It is by no means merely purgative but likewise alterative, changing and improving the whole assimilative process. Hence it is of great use in obstinate derangements of the digestive functions, in obstructions and swellings of the liver, the mesenteric glands, and other viscera of the abdomen, in irregular circulation, particularly of the vena portæ, in diseases of the bladder and of the uterus.

From its energetic action upon the organs and functions just named, it proves eminently efficacious in most forms of indigestion, in obstinate costiveness and bilious affections, in acidity of the primæ viæ and heart-burn, in spasms of the stomach and intestines, in jaundice and gall-stones, in some species of cutaneous diseases, in chronic cough and asthma from indigestion, in hæmorrhoidal complaints, in palpitation of the heart and the larger vessels, and in various nervous complaints arising from

a disordered state of the abdominal organs, such as chronic head-ache, hypochondriasis, hysteria, melancholy, tic douloureux, &c. &c., in some cases of gout and rheumatism, and in various local affections of a constitutional origin. In derangements of the female constitution, and in those diseases of the urinary organs where gravel is formed, or a disposition to calculi exists, Carlsbad water proves highly beneficial.

Contra-indications. Hectic habit; tendency to apoplexy or inflammation; internal indurations approaching to scirrhus, or to an advanced degree of suppuration.

Dose. From three to ten beakers of six ounces each.

The patient should commence with a few beakers only and with the springs of a lower temperature, confining himself to these if he be at all subject to head-ache, vertigo, or congestions of blood in the head or chest. With persons of a low degree of excitability, the Sprudel usually agrees best.

Many persons are restored to health in a gradual and almost imperceptible manner; whilst with others, whose disorders are more severe, the inconveniences incident to their respective complaints not unfrequently appear to be increased, or at least do not lessen in the commencement. Such patients, after drinking the waters for a week or a fortnight, experience a sensation of lassitude, together with fever and irritability, from the immediate action of the water on the suffering organs. After various critical evacuations by stool, urine or hæmorrhoids, this state of excitation, gradually gives way to health and vigour.

Where the waters operate powerfully on the skin and kidneys, the bowels are sometimes not relaxed at first, and recourse must be had to the assistance of gentle aperients, such as a glass of the Seidschütz or Püllna waters, one or two teaspoonsful of the Carlsbad salts, or other opening medicine, which the practitioner may find necessary.

THE SPRINGS OF EMS.

VIZ. THE KESSELBRUNNEN AND KRAENCHEN,

Bear a near resemblance to Carlsbad, and are applicable in the same class of disorders in general, acting less however on the bowels than on the skin and kidneys. They are preferable to

the other in weak constitutions and in great nervous irritability, and may be safely administered in local complaints which have proceeded too far to admit of Carlsbad; such as indurations of the glands and of the uterus, in which a tendency to scirrhus is suspected, and likewise in a disposition to spitting of blood. They are beneficial in hysterical and spasmodic affections in females, in scrophula (especially in children) and in scrophulous pre-disposition, and in swellings of the joints and in rachitis. Ems exerts a specific influence upon the lungs, aud thus often proves of the greatest service in impeding pulmonary consumption, provided suppurating tubercles do not exist. In irregular and painful menstruation, and other diseases of the uterine system, it is particularly efficacious.

Contra-indications. Cases where internal organs have degenerated too far.

Dose. From four to ten beakers.

As with Carlsbad, an inconvenient feverish sensation *sometimes* occurs towards the middle of the course.

II. COLD MINERAL WATERS.

THE OBERSALZBRUNNEN, OR SILESIAN SALZBRUNNEN,

Called also on account of its good effects in complaints of the chest, the Seltzer of Silesia, is a mild alterative and tonic water of well known efficacy in all scrophulous affections of the glands, in incipient pulmonary consumption, in pituitous cough and difficulty of breathing proceeding from relaxation of the bronchial membranes, and in general tenderness of the chest. It also exerts a highly salutary influence upon the functions of the skin, the kidneys, and the womb, and it is very useful in mucous discharges from the bowels. Generally its direct action is at first felt most sensibly upon the kidneys, and during the first days it has rather a tendency to confine the bowels; but after a week their action becomes more regular, sometimes increased. The general health is restored by its secondary action,—an effect sometimes brought about by its inducing diarrhœa or some other critical evacuation.

Dose. From four to eight beakers. The course should be continued from three to six weeks. It is sometimes advantageously used mixed with whey or milk.

THE CONGRESS SPRING OF SARATOGA IN AMERICA.

This, the most renowned of the springs of Saratoga, is an alterative mineral water, eminently deobstruent, and in a slight degree cooling and aperient. It is distinguished from the other waters of the establishment by containing iodine and bromine, remedial agents of great power and efficacy; and long experience has established its reputation of being especially beneficial in that disordered state of the constitution leading to scrophula and consumption, in glandular and visceral obstructions, in diseases of the skin, and in all complaints originating in a torpid state of the circulation in the chylopoietic organs.

Dose. From four to eight beakers. The course should be continued from four to six weeks.

THE KREUZBRUNNEN OF MARIENBAD.

Although not so powerful an alterative and deobstruent as the Carlsbad, it is yet suitable in similar cases, where obstructions of the liver and other organs are less inveterate, and where Carlsbad might occasion congestions, head-ache, and vertigo. It purges more than the other and accelerates the circulation of the blood less. Thus it is preferable to the Carlsbad in derangement of the digestive organs accompanied with a heated and feverish state.

Contra-indications. The same in general as with Carlsbad.

Dose. From three to ten beakers.

THE RAGOTZIBRUNNEN OF KISSINGEN

Belongs to the class of aperient, alterative, and deobstruent mineral waters. It is less exciting and more aperient than the Carlsbad; more aperient and deobstruent than the Kreuzbrunnen. Like these it cleanses the mucous membranes of the alimentary canal, and restores their healthy secretion, but is more efficient in expelling worms and preventing their formation. It promotes absorption and corrects local congestions; it is therefore useful in removing visceral obstructions and enlargements, and is a powerful means of discussing glandular swellings, even of a strumous character. But it is in

female complaints that it is eminently distinguished from all the other waters by its specific action upon the uterine system. In removing congestion of the uterus, it regulates every form of menstrual secretion dependant upon local vascular weakness, vascular obstruction, and abdominal plethora. It possesses all the remarkable property of correcting an unnatural state of menstrual secretion, especially that form of it characterized by the discharge of fibrinous substances, a common cause of profuse menstruation and of sterility.

Dose. From two to six beakers.

THE FRANZENSBRUNNEN OF EGER, AND THE FERDINANDSBRUNNEN OF AUSCHOWITZ,

May be considered as a medium between the Kreuzbrunnen and the directly strengthening chalybeates. They are indicated in place of the Kreuzbrunnen where powerful evacuations are less necessary, or where the constitution is more delicate. They are less admissible in confirmed visceral obstructions, and more advisable where the latter are yet in a state of development, or where the evil is seated in the nervous system.

THE SPRINGS OF PYRMONT AND SPA

Are directly strengthening chalybeates. They augment the energy of the vital functions, exerting a powerful influence over the digestive, assimilative, sanguiferous and nervous systems. They prove salutary in the debility consequent upon severe diseases, violent bodily or mental exertion, and much loss of blood, as after menorrhagia and hæmorrhoids in chlorosis, in copious mucous discharges, in protracted diarrhœa, and in chronic catarrh, in irregular, spasmodic, and painful menstruation, in weakness of the constitution of both sexes, in a tendency to abortion proceeding from true debility, in excessive irritability, in spasms, in nervous vertigo, head-ache, tic douloureux, and many local pains depending on deficient energy in the nervous system, in weakness of the eye, and even in amaurosis, in paralysis, in continued want of appetite, in habitual vomiting without organic vice, in mucous hæmorrhoids, in a tendency to the generation of worms, and in certain cases of atonic gout and rheumatism.

With irritable and weak constitutions, Spa agrees better than Pyrmont.

Contra-indications. Obstructions and indurations of the abdominal viscera, spitting of blood; hectic or apoplectic predispositions.

Dose. From two to eight beakers.

With the chalybeates, particular attention is requisite to a free action of the bowels.

THE SPRINGS OF SEIDSHCÜTZ AND PÜLLNA

Are mild purgative remedies. They are useful as preparatives to Carlsbad, previous to the course of which they may be taken for from three days to a week. They free the bowels from mucus and bile, removing slighter obstructions of the glands and abdominal viscera.

Dose. From one to four beakers.

THE SPRINGS OF SELTZER, FACHINGEN, AND GEILNAU,

Though frequently taken as merely refreshing beverages, are of great use in correcting acid in the stomach, chronic vomitings (occurring in the morning), and disorders of the kidney and bladder. With the addition of hot milk, Seltzer is often productive of the happiest effect in incipient pulmonary consumption. —Fachingen is highly recommendable as a common beverage in chronic acidity of the stomach, and in counteracting the formation of lithic acid and gravel.

REGIMEN AND DIET

TO BE OBSERVED DURING A COURSE OF MINERAL WATERS.

The waters are to be taken in the early part of the morning, generally fasting. From ten to twenty minutes ought to be allowed to intervene between the successive beakers, during which time gentle exercise (short of fatigue) ought to be used. With very delicate persons and irritable lungs, hot milk may be added to some of the waters with advantage. The perspiration being usually augmented, the clothing should be warm, and every liability to catch cold carefully guarded against.

Breakfast should not be taken until one hour after the last beaker, and may consist of tea, (not over strong) coffee, cocoa, or chocolate. The bread should be light and stale, and eaten without much butter.

A due moderation in the quantity of food is equally important with the nature of the diet itself. From the latter the following articles should be *entirely* excluded,—smoked and salted meat, fish, heavy and flatulent vegetables, such as cabbage, new potatoes, &c., all raw fruit and vegetables, iced cream and acids of every description, highly seasoned or fat dishes, cheese, new bread, pastry and heavy puddings.

Spirits, and even strong malt liquors, should be abstained from, and wine taken only in diminished quantity. With the warm mineral waters, the use of *very cold* beverages ought likewise to be limited.

A diet is recommended consisting of all kinds of butcher's meat, (pork excepted) poultry, lean venison, and game of every sort, roasted or boiled, light vegetables, as spinach, French beans, &c.; broths not over seasoned, sago, &c.; light puddings, and ripe fruit, stewed or baked. As beverage, wine diluted with water, and malt liquor of moderate strength.

An inclination to sleep after dinner, especially in a recumbent posture, must be repressed.

The effects of mineral waters are by no means confined to the period of their use; hence the same temperance that is observed during the course should be persevered in for some time after its conclusion. The course itself which may last a month, or even longer if the case be an obstinate one, should not be interrupted by any pause, unless with females whose indisposition may intervene.

Cold baths, even in the sea, are altogether incompatible with the use of warm springs; on the other hand, the tepid bath mostly co-operates in restoring the patient to health.

END OF PART I.

PART II.

OF THE DISEASES TO WHICH PREGNANT WOMEN ARE LIABLE.

OF THE SIGNS WHICH USUALLY ACCOMPANY PREGNANCY.

The *uterus* or womb is to the female a peculiar centre of sympathy, and when impregnated certain changes in the constitution very soon take place, the diseases of pregnancy being really so many sympathetic affections. Some of these changes are so uniform and well marked, that they have been justly, but not unequivocally, considered as signs that pregnancy has taken place—the *first*, and most usual, is the interruption of the monthly periods; the *second*, nausea, vomiting, and heartburn; the *third*, enlargement of the breasts, and the darkness around the nipple; the *fourth*, the enlargement of the abdomen. Besides these there are frequently other signs, which we shall notice presently.

1. THE SUPPRESSION OF THE MENSES

In married women justly gives rise to the suspicion, that impregnation has taken place, and as a general sign may safely be looked upon as one of the most unequivocal that present themselves. Yet we ought not to forget, that a variety of causes independently of pregnancy may operate to this end, viz. Exposure to cold and damp, or to high winds, at the time they are about to appear, or immediately after they have shown themselves;—certain chronic affections, as pulmonary consumption, scirrhous liver, or other internal obstructions;—the operation of certain powerfully depressing passions or emotions of the mind, &c.

If then the absence of the menses does not positively declare pregnancy, it becomes an interesting and important question, Will their presence insure an exemption from it? Until within the last few years, scarcely a professional person could be found who would have answered in any other way than in the affirmative. Thus the very experienced author of the *London Practice of Midwifery*, says, *(p.* 109,) "No woman can be with child if she menstruates; this is the *sine qua non* of pregnancy; for though there may be sometimes an appearance of blood, there is not that regular appearance of uncoagulating fluid which constitutes the *menses"*; and Dr. Denman declares, *(System of Midwifery, seventh edition, p.* 148,) "That he had not met with a single instance of any woman continuing to menstruate when she was pregnant." There are, perhaps, many practitioners of the present day who entertain the same sentiments, but the majority of the profession are now decidedly in favour of a contrary opinion, and some of much experience in this department of medical practice assert, that they have repeatedly met with cases of pregnancy, in which the courses continued to flow during the first two or three months.

The common opinion in regard to the stoppage of the monthly courses under impregnation is doubtless correct, as a general rule; but it ought not to be forgotten, that occasional exceptions to this rule are met with, it being quite possible for a woman to be in the family-way, and yet continue to menstruate. The remembrance of this exception may sometimes be of great service, as is proved by the following dreadful case, which occurred in Paris in the year 1666.—A woman was executed, although she swore that she was several months gone with child; the subject was referred by the judge to some persons, who were appointed to visit her. They reported that she was not pregnant—"because she had her monthly courses." On dissection, a four-month's fœtus was found in the womb!!

Dr. Dewees, of Philadelphia, says, *(System of Midwifery, p.* 96,) "We are perfectly familiar with a number of women who habitually menstruate during pregnancy, until a certain period; but when that time arrives it ceases. Several of these menstruated until the second or third month; others longer; and two until the seventh month—the two last were mother and daughter. We are certain there was no mistake in all the

cases to which we now make reference. Our interrogatories were numerous, and their answers bore all the marks of candour."*

Dr. Francis, in his American edition of Denman's Midwifery, relates a case which occurred to Dr. Hosack, of New York, in which a female, in her last three pregnancies, menstruated until within a few weeks of her delivery, bearing healthy children at each labour.†

2. THE NAUSEA AND VOMITING

Are generally experienced in the morning. Occasionally it lasts through the day, but is commonly felt on first rising in the morning, and frequently harasses the woman for the first two or three hours afterwards.‡ The matter thrown up is

* A most extraordinary case, the very contrary to suppression of the menses, fell under the notice of Dr. Dewees in 1791. "A woman applied for advice for a long-standing suppression of the menses; indeed she never had menstruated but twice; she had been married a number of months, and complained of a good deal of derangement of stomach, &c. We prescribed some rhubarb and steel pills. About six months after this, she again called to say, that the medicine had brought down her courses, but she was more unwell than before: her sickness and vomiting had increased, besides swelling very much in her belly; we saw this pretty much distended, and immediately examined it, as we suspected dropsy, but from the feel of the abdomen, the want of fluctuation, and the solidity of the tumour, we began to think it might be pregnancy, and told the woman our opinion. She was anxious to understand her situation herself, on mentioning our impression, and on submitting to the use of means to ascertain the fact, it was proved she was six months advanced in pregnancy. After this time, she had the regular returns of her catamenial period until the full time had expired. During suckling she was free from the discharge; she was a nurse for more than twelve months, she weaned her child, and shortly after she was again surprised by an eruption of the menses, which, as on the former occasion, proved to be a sign of pregnancy. Whether this peculiarity pursued her still further we cannot say, as she soon after the birth of her second child removed from the neighbourhood."—*Dewees' Midwifery. p.* 97.

† The opinion of our neighbours, the French, may be gathered from the following quotation:—

"La cessation des regles ne doit pas être un signe certain de grossesse, puis qu'il y a des affections qui suspendent cette evacuation: d'ailleurs plusieurs femmes sont reglées pendant les premier mois de la gestation."—*Diction. des Scienc. Medicales, tom.* xix. *p.* 374.

‡ The morning sickness in the progress of pregnancy is thought by some to be closely connected with the growth of the child, so much so, that it has sometimes been a rule to judge that where this ceases the child is dead. This rule, however, is liable to many exceptions.

usually a sour, pretty tenacious mucus, at other times a thin extremely acid water, which sometimes even excoriates the throat. At other times, bile accompanies the discharge, even in considerable quantities. This vomiting is, for the most part, attended with constipation; the appetite is either voracious, or nearly destroyed, and almost always whimsical.

When these affections are slight, the women are taught not to mind them; they do not mind them; they usually bear them with great patience, and we hear but little of them. But where the stomach continually rejects whatever food is taken; where there is a continual vomiting of bile, as well as food, and this is pretty constant, the patient becomes emaciated, and seeks and needs the best advice.

All those medicines which are commonly prescribed to allay sickness, do no good here. The saline draught and opiates are quite ineffectual. One of the most effectual remedies, unless the female is so weak as to render this means improper, is to take away about six ounces of blood from the arm; it will not usually affect the strength. Should pain, and a sensation of burning about the region of the stomach be felt, much good is experienced by the application of ten or twelve leeches to that region.

Should the bowels be constipated, a little calcined magnesia in milk will be found useful. In extreme cases, the patient may be wholly confined to a table-spoonful of good milk every fifteen or twenty minutes, and a spoonful of lime-water may occasionally be added to it, until the stomach is relieved. Acids are sometimes useful, especially the vegetable acids, (on account of the teeth.) A Lady, in this state, has been known to subsist for many days together, and with advantage, on the juice of a dozen lemons daily.

The spirit of turpentine is sometimes useful in twenty drop doses, taken three or four times a day—it should be taken in cold water sweetened. When the system is not excited to feverish action, and where the stomach rejects every thing almost as soon as swallowed, a table-spoonful of clove-tea will frequently act very promptly and successfully. This tea is made by bruising about twenty cloves, and then pouring a half-pint of boiling water on them, permitting it to stand covered up until cool.

Heartburn is sometimes a most distressing affection here. To moderate it, we may try magnesia, lime-water and milk, or either of the remedies previously recommended.

It is in vain to point out any particular diet for patients in these circumstances, for any plan we can devise will scarcely apply to any six patients. We must therefore direct the use of such articles as their experience has proved best to suit their condition; and the waywardness of the stomach upon such occasions is often truly remarkable.*

3. THE ENLARGEMENT OF THE BREASTS

Is a very common attendant upon genuine pregnancy, though it is not uniformly so. The peculiar dark circle, or *areola*, which is formed round the nipples of pregnant women is a more certain sign, but it requires judgment to decide upon it, for it is not exactly the same with the permanent stain left around the nipple of most women who have suckled a child. We are called to attend not only to the change of colour, but to the accompanying phenomena, particularly to a soft and moist state of the skin in that part, and a slight oozing from the little glandular follicles, sufficient to damp and colour the woman's inner dress.

Some physicians have regarded the formation of this dark ring or *areola* a positive proof of pregnancy. This was the case with Dr. Smellie, whose practice in midwifery was very extensive, and his knowledge therein exact. Dr. Wm. Hunter is said to have placed such confidence in it, that he on one occasion pronounced a deceased female pregnant, upon this single sign, although the state of parts most strongly contradicted the opinion: he, however, on dissection, was proved to be correct.

4. THE ENLARGEMENT OF THE ABDOMEN

Is a very equivocal sign of pregnancy, since it may arise from dropsy; a chronic disease of the ovarium† or uterus itself; retained menses; swelling of the spleen, &c.

* "We have lately had a patient who could retain no article whatever, except Indian meal cake, baked hard upon a board—this uniformly kept down, and she literally lived upon it for weeks."—*Dewees' Midwifery, p.* 112.

† "To draw a line of demarcation between diseased *ovarium* and pregnancy is difficult; and the most extraordinary mistakes have been committed in the attempt.

From too much precipitation in judging of the probability of pregnancy from an enlarged abdomen, the feelings of many respectable unmarried females have been most powerfully and cruelly wrought upon.

The signs remaining to be noticed, as marks of pregnancy, are *salivation*, *the formation of milk*, *tooth-ache*, and *the spitting of a frothy mucus*.

The *salivation* is a rare sign, but when it does exist, is a pretty certain one. Pregnant women have been known to be as severely salivated, as if they had taken large quantities of mercury.

If the salivation continues long, the female becomes very weak, both from the quantity of fluid poured from the mouth, as well as the inability it produces to take and retain sufficient food on the stomach. The general plan of treatment is the same as that pointed out for vomiting and heart-burn. A strict animal food diet is sometimes of much service. As an example of an extreme case of this affection, and in illustration of the proper management, I have extracted the following from *Dewees' Midwifery*, *p.* 115.

We were called upon to prescribe for Mrs. J. who was advanced to the fifth month of her pregnancy. At the second month she was attacked by a profuse salivation: she discharged daily from one to three quarts of saliva, and was at the same time harassed by incessant nausea and frequent vomitings—so irritable was the stomach, that it rejected almost instantly any thing that was put into it; she now became extremely debilitated, so much so as to be unable to keep out of bed: and when she did attempt to sit up, she would almost instantly faint, if not quickly replaced.

From a belief that the affection might be local, astringent gargles were freely employed, but with marked disadvantage. A large blister was next applied to the back of the neck, with decided but transient benefit; that is, the salivary discharge was less, the nausea diminished, and the vomiting less frequent; but this favorable impression was but of three or four days duration: for after this time all the unpleasant symptoms returned with their former severity. An emetic of ipecacuanha was now exhibited, followed by a cathartic of rhubarb and magnesia, without the smallest benefit; soda-water, lime-water and milk, milk itself, &c. were, in turn, unavailingly employed. We now put our patient upon a strictly animal diet, and

Some years ago, I was engaged to attend the lady of a military officer, who during the preceding pregnancy, had been considered as labouring under ovarian disease, for which, in the words of her husband, *she had been unmercifully salivated, oftener than once, and made to swallow such a quantity of the solution of muriate of lime, as would have filled a fish pond;* but the fœtus proved a true son of mars, for he would not quit his fortress until the proper period."—*Campbell's Midwifery, p.* 470.

ordered ten drops of laudanum morning and evening, and fifteen at bed-time: this plan succeeded most perfectly in the course of a few days; nausea and vomiting ceased, and the discharge was reduced to less than a pint a day: and, perhaps, the force of habit had no inconsiderable agency in the production of this quantity. The bowels, during this plan, were kept open by the extract of butter-nut and rhubarb in the form of pills. This lady never had any return of this complaint in her subsequent pregnancies.

The *formation of milk* in the breasts is coeval in some pregnant women with their swelling; while in others it is never formed until after delivery. We must be on our guard lest this sign should deceive us, for it is not infallible. This fluid has been known to be plentifully secreted without pregnancy, merely by the obstruction of the menses. It has been produced in women after the period of child-bearing. Dr. Steindal, of Berlin, knew a case of a female of sixty-three, whose daughter gave birth to twins in her first confinement, being unable to nurse both, the old woman undertook the charge of one of the grand-children, and by frequently applying it to the breast, so copious a secretion of milk at last appeared, that she was enabled to suckle it for seven months.—*Campbell's Midwifery, p.* 493. A very uncommon case is related in *Dewees' System of Midwifery, p.* 100, which came under his own notice, in which a considerable quantity of milk formed in the breasts of a lady, who, though she had been married a number of years, had never been pregnant, but who at the time referred to had been two years separated from her husband. She mentioned the fact to a female friend, who from an impression that it augured pregnancy, told it to another friend as a great secret; who in her turn very improperly told it to another, and at last it travelled to the ears of the lady's brother. He was greatly incensed, and did not hesitate to put forth very cruel accusations: the lady was determined to have the question decided forthwith, and, conscious of her innocence, in the exercise of admirable wisdom and courage instantly sent for Dr. Dewees, who soon convinced the erring party of their mistake. The lady died in about eight months after of consumption, in which the obstruction of the menses is not an unfrequent occurrence.*

* For the *itching* which is sometimes so distressing in pregnancy, we recommend the female to wash herself, four or five times a day, with a strong solution of borax in water, and to inject a little at the same time. See p. 101.

Women expect, as a matter of course, that an accoucheur is on all occasions able and ready to pronounce upon the existence or non-existence of pregnancy, even when the woman herself is uncertain of it. Unaware of the difficulties which sometimes surround this question, they suppose that a medical man, and especially if he has been long in practice, and is a married man, ought to know at once whether the fond hopes of the mother be rational or not; and some are apt on receiving an equivocal reply, to attribute it to ignorance, inexperience, or something worse. But females ought to know, and bear in mind the fact, that the rational signs of pregnancy may exist in stronger or weaker combination, without proving unequivocally this condition of the womb to be present, although they may have little or no room for rational doubt of its existence. Indeed, there is but one certain mark by which pregnancy can be absolutely determined, and that is the movements of the child itself within the womb. We cannot here rely upon the opinion of the woman, as she may be deceived, or have motives to mislead, therefore we must, on this point, decide for ourselves.

To do this it is requisite to place the hand upon the bare abdomen, and wait for the motion of the child, or we may press it suddenly, and with a slight degree of succussion. Should we fail in this way, the ready expedient of plunging the hand first in very cold water, and then suddenly laying it over the abdomen, will often at once detect the movements of the child. By these means we rarely fail to excite the little being to action; and we may succeed in having it even pretty frequently repeated, by repeating the same means.

It is, however, certain, that now and then a case is met with where the motions of the child cannot be perceived during the whole period of pregnancy, and therefore the absence of all motion within the womb does not determine the woman not to be pregnant, when a sufficient number of the other signs combine to render it more than probable that this is the case.

Quickening is the ascent of the womb into a higher situation, that is, from the cavity of the pelvis into that of the abdomen. This usually takes place about the end of the fourth month, or it may be a little sooner or later. The motion of the child is then sensibly felt by many women, and it usually becomes

stronger as it acquires more vigour. Many of the distressing symptoms of pregnancy, as the nausea, sickness, &c. generally abate after this period, which amelioration probably depends chiefly on the womb being enabled to repose on the *symphysis pubis*, (or the bones at the bottom of the belly,) and its neighbourhood, which form a secure resting place, and from which it is no longer liable to be depressed in the cavity of the pelvis, by the often repeated impulses of the contents of the abdomen.*

OF THE DISEASES OF PREGNANCY.

The principal diseases of pregnancy are, *Costiveness, Diarrhœa, Fever, Miscarriage, Piles, Retention of Urine, Retroversion of the Womb, Pruritus, and Swelling of the Legs and Feet.* I shall describe the best means of relieving or curing these disorders as clearly as I am able, and afterwards advert to the management of women in child-birth, and then to the complaints which sometimes follow delivery.

Costiveness is a common attendant on the pregnant state, and may be relieved by the usual means. Any very mild aperient may be employed, as castor oil, the compound rhubarb pill, in doses of five grains or more, or the lenitive electuary. Magnesia sometimes answers very well.

Pregnancy is apt to cause an accumulation of hardened *fæces*, and the pressure from them not very unfrequently produces such a *tenesmus* as to endanger or provoke miscarriage. This may happen at a time when the woman thinks herself loose in

* There are cases of simulated or pretended pregnancy continually to be met with, some of which very much perplex the medical practitioner, while others are very readily detected. The pretended pregnancy of the notorious and desperate impostor Joanna Southcote was almost instantly detected by the men of ability who examined her, although, it is true, there was one medical practitioner, and but one, who gave a contrary opinion. This person, however, was never mistaken for a man of any professional ability whatever. Joanna acted here in perfect consistence with her whole system of secresy and imposition, and would never allow the examinations of the physicians to advance in the least beyond what were purely external—no internal examination was allowed. Upon dissection after death, it was found that the swelling, which she had declared was a pregnant womb, was the urinary bladder, which this woman had the power of distending to a greater extent, and keeping distended much longer than ordinary persons can do, and that the womb itself was actually smaller than it is usually found even in the virgin state.

the bowels, and a caution is requisite here. The fact is, the liquid motions pass by the *scybala* or hardened balls of *fæces*, and thus frequent mistakes are made. To prevent which it is always proper to enquire when the patient has had a *costive* stool, and what sort of stools those are which are commonly voided?

If there is reason to consider that an accumulation of hardened fæces actually exists, an injection of soft soap and water should be immediately had recourse to, (prepared by dissolving an ounce of soft soap in a pint of water,) and if this does not sensibly relieve the patient, a wax and lard bougie, or something equally pliable, must be passed up the rectum, in order to break down the mass of indurated fæces, and bring them away.

The *piles* is a very common complaint of pregnancy, and more so about the time of quickening than at any other. Sulphur and manna are very mild and excellent aperients in this case, and a little of each may be taken every morning, in dill or pimento water, or any other agreeable vehicle, so as just to keep the bowels well open. If the piles are external, leeches may often be applied with excellent effect, or ten grains of acetate of lead, dissolved in six ounces of rose water, forms a good lotion, with which the parts may be washed. An ointment made of equal parts of the juice of house-leek and cream is extremely valuable. The throwing up of cold water into the *rectum* is also frequently successful.

It is of great consequence immediately to attend to *diarrhœa* or looseness in pregnancy, as the *tenesmus* accompanying it will sometimes provoke miscarriage. *Diarrhœa* in pregnant women should be treated just as at any other time, and for full advice on this point, as well as in regard to the treatment of *piles*, my Modern Domestic Medicine may be referred to. It is usually best first to give a draught of rhubarb and magnesia (eight grains of rhubarb and twenty of magnesia) in mint water, and after the bowels are thus cleared, provided there is not much fever, mild astringents may be given, especially fifteen grains of the compound powder of chalk, in pimento or any other aromatic water, which may be repeated as occasion may require. If much fever is present, that must be first removed, as the *diarrhœa* is the least of these two evils.

Retention of urine may arise from inflammation about the neck of the bladder. It will frequently arise from cold,—from its sympathy with the womb,—or from the pressure of the womb upon the neck of the bladder. This complaint may become important, by a continual desire to make water, and this is often prevented by the neck of the bladder being much swollen; and whenever retention of urine occurs during either pregnancy, or child-birth, it calls for the utmost attention, and all known means must be promptly tried. In these cases, there is usually an uneasiness or pain felt in the region of the bladder, and sometimes a tenderness of the bones in the front and at the lower part of the belly. In general, women in these circumstances bear blood-letting very well, and taking away six or eight ounces of blood from the arm will often do more good than any thing else. The patient should likewise keep the bowels open with castor oil, and take occasionally a little tincture of hyoscyamus, and drink freely of mucilaginous drinks, such as linseed-tea, barley-water, gum-water, &c. All saline aperients, such as Epsom salt, &c. should here be carefully avoided.

Now and then the *Pruritus*, or itching in the external parts, is extremely annoying—it will be relieved or cured by the means already recommended under that article, at page 101.

The *Retroversion of the Womb* is a displacement of the organ, in which its *fundus* is precipitated backwards, and places itself between the rectum and bladder, in such a manner as to be readily felt upon the introduction of the finger into the vagina, while the neck of the womb is directed upwards and forwards.

It usually takes place between the second and the fourth month of pregnancy, as after this period the length and thickness of the womb will exceed the opening of the superior strait, and prevent its folding down upon itself.

The remote cause of this complaint is, whatever tends to depress the fundus; and may be either external violence, such as blows, pressure, sudden exertion, &c. or they may be violent efforts to vomit, violent coughing, or an over-distended bladder. These *causes* may operate suddenly, so as instantly to produce the disease; or slowly, and require a long time for its completion.

When suddenly induced, the *symptoms* are usually violent

and alarming—such as an immediate interruption to the flow of urine, or the passage of the stools; alternate pains, accompanied by great forcing or bearing down, a disposition to fainting, &c. When the retroversion is a long time in being completed, the evils arising from it are less urgent and severe. But in both cases, if the womb be not restored, the symptoms will increase in intensity; instead of merely a difficulty and frequent inclination to make water, there will be a total suppression of it, accompanied by a painfully intense desire to do so; for the child will be increasing in size, and the womb developing itself, giving additional pressure to the parts with which it is in contact.

Treatment. This is a complaint which generally requires the exercise of the skill of a medical practitioner, both in its detection and removal. The chief indication is, to draw off the urine; and we have also to procure stools. The catheter must be used to draw off the water. An elastic gum catheter is probably usually the best, and it must be introduced more directly upwards than in ordinary cases, the point being introduced close behind the *pubis*, or bone in front.

When the water has been once drawn off, it will be necessary to pass the catheter twice a day, till the womb, by a gradual enlargement, recovers its natural situation. As it increases in size it will frequently gradually rise; but if not, the assistance of an able practitioner must be obtained, as it may be advisable to endeavour to restore the womb to its proper situation, which is done by placing the patient on her hands and feet, and passing two fingers of one hand into the *vagina*, and a finger of the other into the *rectum*, or last gut, and gently raising it, by which means it is sometimes possible to succeed.

Prior to our endeavour to raise the womb into its natural situation, it will be proper to unload the lower bowels by the use of a lavement of gruel and castor oil; and should there be much fever and restlessness, the abstraction of blood from the arm is likely to afford much relief.

The following are instructive cases of this complaint—

"Case 1. A young woman, maid-servant in a very respectable family, was detained upon some household business so long, that, though she wanted to make water when first she came into the room where she was at work, when she went out again, found she could not pass any; she was in

great pain, and begged her mistress would let her go home to her friends. A young gentleman who attended her family came to an eminent practitioner, wishing him to see her. While going along, he said there was some swelling in the abdomen, and great pain as well as suppression of the urine. The practitioner asserted that she was with child, and not only so, but that she was three or four months gone: and the event proved the truth of his assertion. Upon examining this girl, the *fundus uteri* was found lying in the hollow of the *sacrum*, while the *cervix uteri* was up above the *pubes*."

"Case 2. A lady in the country, the first time she met with this accident, was at church, and on coming home found herself unable to pass any water. It had happened in this instance, as it usually does, that it arose from allowing the bladder to be too much swelled by its contents. This lady had been fomented and plied with diuretics to make her secrete plenty of water, while she was unable to pass a drop, and the bladder was too full already. The medical man who attended her wrote to a celebrated practitioner in London, and described her symptoms; his answer reached him in time to save her life; and though her misery must have continued pretty long, considering all things, yet he relieved her upon knowing what it was. This same lady was about two years ago in London, and had the very same occurrence take place, and in church again. The fact is, the full bladder may always produce it."—*London Practice of Midwifery, p.* 122.

Fever is common in pregnancy: the pulse is quicker than natural, the heat of the skin is increased especially towards the evening, and the woman is frequently deprived of sleep at night. Sometimes the nights prove very restless, and the feverish symptoms in some instances, in the latter months of pregnancy, are very troublesome. This condition induces emaciation, and a peculiar sharpness of the features, and must be ameliorated by the usual means of reducing febrile action, —namely, by keeping the bowels open, from the use of saline aperients, as No. 5 or 6,—by the occasional use of a saline draught,—by a mild diet, and plenty of cool air,—and especially by taking away six or eight ounces of blood, which operation may be repeated, if the fever calls for it, and the patient's constitution can bear it. The patient is often much relieved by immersing the hands and wrists in a large basin of the coldest water, for ten minutes at a time, and washing her temples with it—this carries off a part of the morbid heat; and she should be very particular in avoiding close or heated rooms.

The restlessness at night will be relieved by sleeping with

few bed clothes. Some persons recommend opiates at night, in order to procure sleep in this state, but I think they are generally inadmissible; I prefer trusting to the saline draught, cool air, and washing in cold water, with occasional blood-letting. If medicine is requisite to promote sleep, we recommend four or five grains of the extract of henbane.

The Swelling of the Thighs, Legs and Feet, from which some pregnant women suffer so much, is owing chiefly to the pressure of the enlarged womb on the lymphatic vessels, and on the large veins of the *pelvis*. Aperients and friction are the best remedies. Wearing an elastic stocking may also be tried, when the legs and feet are chiefly affected. The horizontal posture should be observed. Sometimes the abstraction of blood from the arm will greatly relieve the patient.

Tooth-ache is sometimes a very early symptom of pregnancy. Should the tooth be sound, I would advise it not to be extracted on any account; but to be borne with patience, while relief may be sought by holding a little of a very strong solution of salt and water (warm) in the mouth, around the painful tooth. Warm salt and water is one of the very best remedies for tooth-ache. A drop of kreosote is excellent.

Dr. Burns says, *(Princip. of Midwifery, p.* 238,) "I have known the extraction followed, in a few minutes, by abortion."

Affections of the chest are common in pregnancy. Inflammation of the lungs, denoted by pain, cough, difficulty of breathing, quick hard pulse, &c. is not unfrequent, and when present, the usual active measures of blood-letting, calomel and opium, and a toast and water diet, must be rigorously enforced. The general rule is to bleed and bleed again till the patient is cured.

A short, teazing, dry, frequent *cough*, sometimes distresses the woman. This must be relieved by all possible means, for it is very liable to induce abortion—should this take place, the cough often suddenly ceases, a proof that irritation of the womb, from the presence of the child, was the real cause. The abstraction of a little blood from the arm is very useful, and afterwards a blister may be applied, either to the chest or between the shoulders. Assistance may also be obtained by taking four grains of the extract of henbane, twice or thrice a day, with or without half a grain of powder of ipecacuanha: or a pill may be taken in the same way, composed of two grains

of rhubarb, one of powdered digitalis, and one of ipecacuanha. These ingredients may be combined by means of a little extract of hemlock, and the pill is an admirable remedy.

It is worthy of particular notice, that pregnant women bear blood-letting well, and whenever any symptoms of *severe* irritation discover themselves, whether in the head, womb, chest, or in any other part, no time should be lost in taking away blood. *This principle affords us an excellent guide in almost all cases of severe morbid affections arising in the pregnant state*, for we may be pretty sure that then the abstraction of blood is not only indicated, but is almost indispensable. Thus, for example, should severe head-ache occur, and continue, notwithstanding the employment of simple measures, this principle will directly lead us to the use of the most proper and efficient means—blood-letting,—especially if the eye be dull or suffused and the head giddy. The same remedy will likewise be indicated in spitting of blood.

MISCARRIAGE,

Or *abortion*, is usually considered a serious evil. Of course an expulsion of the contents of the womb may take place at any period of pregnancy. It is called a MISCARRIAGE at any period before six months; after that time, *premature labour*.

Women of an irritable, excessively sensitive, nervous, lymphatic, or delicate constitution are those most liable to this accident. Undoubtedly women of very weak constitutions are very liable to miscarriage, from the greater irritability of their nervous system; but in some very strong females also there is a condition, whether owing to a high state of tension, or other causes, which favors this premature action of the womb.

The principal causes of abortion are, great derangement of the general health, disorders of the stomach or bowels, external injuries of various kinds, lifting heavy weights, excess in walking, and strong mental emotions, induced by fright or any other cause. *Diarrhœa* and great irritation about the lower bowels may produce it, (194.) Chronic affections of the womb will pave the way for it, and any thing which tends to the debilitating of that organ. Difficult Menstruation, (p. 88,) and Polypus of the Womb, (118,) are causes of abortion.

Acute diseases, such as pleurisy, continued fever, small-pox, &c. will produce miscarriage.

The effect of sympathy and habit, as causes of miscarriage, should not be overlooked. Sympathy has such an effect with other animals, that every shepherd knows if one sheep aborts, others almost always prove abortive too. If a sheep lambs, the shepherd separates that animal from the flock, to prevent the other ewes lambing before their time. One animal is thrown into action, because another animal is acting. These facts prove the impropriety of a pregnant woman being in the room with one who is miscarrying.

Some persons doubt the existence of a habit of miscarrying, but certainly one abortion paves the way for another, and a second or third abortion exerts a still greater influence in this way. What we meet with in medical practice sufficiently proves that certain parts of the body often manifest a tendency to repeat or continue those modes of acting which they have frequently performed. In respect to the womb, one remarkable instance of this is related by *Schulzius*, a foreign writer, of a woman, who, in defiance of every means tried to prevent it, miscarried twenty-three times at the third month.

It has been well observed by the author of the *London Practice of Midwifery*, *p.* 129, *sixth edition*, "that the womb is in some degree of the same nature with other parts, as to a peculiar disposition to action." In various people we know the bladder, without inconvenience, contains a different quantity of urine; in one person it will not, without his feeling uncomfortable, contain more than six ounces; but that is not so much as it will hold, because it will, if necessity urges, contain four times that quantity, proving that it can dilate. Every person may have observed that at one time the quantity which he retains with convenience will vary from that which he retains at another time. It is the same with the *uterus*, which may be apt to increase to a certain magnitude and no further, by which *the ovum* attains a particular size only before it excites the involuntary action of the *uterus*, by which the whole is expelled. That the disposition exists, and that it is that alone, appears from this circumstance, that many women go to the usual time of miscarriage, and feel all the signs of disposition to abort, and yet, if they keep quiet for a sufficient length of time, they

will recover, and go to the full time of pregnancy. This is accounted for by the disposition of the *uterus* to contract at a certain period of pregnancy.

In respect to the progress of this evil, women abort in various ways. In some the *ovum* has been known to be expelled in an hour, while in others the process has gone on for days, before it has been completed. The *ovum* may come away in a clot of blood, and may not be known to be of such a nature, unless the coagulated mass be broken down and examined. "In some abortions (*London Practice of Midwifery, p.* 132,) there is great pain: the grinding pains will sometimes equal those of labour: while in others there is very little, the *ovum* appearing to drop off from its connection with the *uterus*, upon the mouth of the womb being relaxed, just as premature fruit drops from a tree."

The signs of approaching miscarriage are, the absence of the morning sickness—a subsidence of the swelling of the breasts, and pains about the abdomen and back.

Neither pain nor hæmorrhage necessarily produce miscarriage. La Motte (*Observ.* 305) affords us an instance where the woman went her full time, after the orifice of the womb was considerably dilated. Dr. Burns also gives an example in point, in his Principles of Midwifery. He says, that cases have occurred of twins, one of which has been expelled, while the other remained, and the growth of the *fœtus* has gone on to the proper period. This appears like demonstration, that after muscular action has been universally established, it can be suspended for a considerable time; if this be so under the circumstance of one *fœtus* being expelled, and the womb by a cessation of action shall permit a second to remain until the proper time, we have still greater reason to expect it when the womb is not so extensively or powerfully excited.

Both Mauriceau and La Motte relate cases where the womb was emptied of its waters, and yet the women went their full time, though they were not within six or seven weeks of it. In these instances the womb could not fail to have contracted. Dr. Denman was also of opinion that uterine contraction could be subdued. He asserts, that experience has fully shown that women who have had not one only, but repeated discharges,

with considerable and regular pains, have gone to their full time.

It is often an object in medical practice, in threatened abortion, to lessen the attendant pain and contractions of the womb, and thus put a stop to the expelling process; but there is one case in which we never interfere with the slightest prospect of a happy issue, and that is where the process of gestation or growth has unequivocally ceased, and of which probably there is but one circumstance absolutely certain, namely, where the breasts have become tender and tumid, and then pretty suddenly subside. It would here be a forlorn hope to administer remedies with a view of preventing abortion.

Treatment. I would first remark, that *miscarriages are almost universally void of danger*, either from the loss of blood, or on any other account, notwithstanding that some of the symptoms might be most dreadful and alarming. Denman long since remarked,—it is perhaps impossible to explain it, but the fact is undoubtedly true, that an equal loss of blood, and with apparently equal and immediate effects, should, in abortions, if properly managed, and the patient be in good health when they take place, not occasion any danger; and yet at the full period of pregnancy be so dangerous, that one considers the patient who recovers as being favored with an unusual escape. It is wonderful also to observe, how soon women recover from the debility occasioned by loss of blood in abortions; and how long a time is often required for their recovery after the same circumstances in advanced pregnancy.*

* "But though I reckon there is little or no danger from mere abortion, yet when the accident is in consequence of acute diseases, there is often extreme danger; for women abort because they are already in great danger, and this is aggravated by the abortion. Without a more accurate distinction we may still form an erroneous prognostic. It has been generally said, for example, that women who miscarry, or are delivered at the time of their having the small-pox, universally die. Now, if a pregnant woman should, at any period of pregnancy, expel her child in the commencement of that disease, perhaps from the violence of the eruptive fever, she may not only escape the danger, but go through the disease with as much regularity as if she had not miscarried. But if that period of the disease be passed without abortion, and the patient should go on to the time of the crisis, and then miscarry, the general prognostic will be too true: at least the death of the patient has followed in every case of this kind which I have seen."—*Denman's Midwifery, seventh edit. p.* 377.

There are many cases of severe flooding in pregnant women, in which miscarriage may nevertheless be prevented, owing in some instances, perhaps, to the extent of lesion not being considerable. Now as we have no unequivocal mark by which the cases in which abortion may be prevented, may be distinguished from those in which it cannot, it becomes a duty, in the management of all such cases, so to act as if we could succeed. Mauriceau (in his *Observations No.* 160—178) gives one instance where miscarriage was prevented, notwithstanding there were frequent returns of hæmorrhage until the third month; and another were there was almost a continual discharge for five weeks, and that at times very abundant. Puzos declares that pain and flooding do not always produce abortion —*Mem. de l'Academ. tom.* i. *p.* 211. Dr. Bard, an American writer, also says, a discharge of blood from the womb, though a very frequent, and generally the most important symptom, is not necessarily followed by a miscarriage.

It is not, in general, possible to distinguish with certainty, in the commencement, the cases which will or will not terminate without abortion. Still, where the neck of the womb is distended so as to resemble in feel the extremity of an egg, however small the opening of the mouth of the womb may be, we may be pretty sure that miscarriage will sooner or later take place. Another unequivocal mark is, the cessation of the morning sickness, and a diminution of the size of the breasts, with flaccidity. In both these cases, all attempts to prevent a miscarriage, by the administration of opium, bleeding, or other remedies, will be unavailing; our whole care must be directed to the state of the flooding.

As a general rule it may perhaps be stated, that those cases of flooding following any violence, more certainly end in abortion than on those which come on silently and slowly, without any apparent cause.

We should place no reliance upon the opinion that a moderate discharge of blood from the vagina, during pregnancy, is useful, by removing topical plethora. On the contrary, we should look upon every appearance of this kind with great suspicion, and treat it as if it were to become decidedly mischievous. Even the legitimate returns of the menses, when

there is reason to believe that the womb is impregnated, should be treated with caution, since we cannot satisfy ourselves at first that it is merely a monthly purgation. No evil can result from the adoption of the advice, but from a neglect of it much mischief may ensue. In all cases then, where there is a discharge of blood from the vagina of a pregnant woman, we should immediately treat it with the utmost care—all the essential indications should be instantly complied with, and no time should be lost by temporizing.

In miscarriage, *the essential indications of treatment are—First, to arrest the bleeding; Second, to subdue pain, if present; and Third, to prevent a recurrence of the hæmorrhage.*

These three points are constantly to be kept in view, as the preservation of the child, or even of the woman, is dependant upon them. Therefore, whenever a woman is seized with a hæmorrhage from the womb, the sooner we can arrest it the better; every known remedy of efficacy is to be employed in succession, should the antecedent ones fail of success; and every advantage must be given to the means by the patient and her attendants, by a strict adherence to the directions enjoined. It would be in vain for the physician to prescribe, if either the patient or attendants run counter to his instructions; and in no case perhaps is this observance of more decided consequence than in the complaint we are now considering.

One of the first steps to be taken, is to command the most perfect rest of body, and of mind, as far as may be practicable. The patient should be placed on a mattress, sacken-bottom; or even floor, in preference to a feather bed. The room should be well ventilated; the patient very thinly covered; her drinks of the mildest kind, such as toast-water, cold balm-tea, lemonade, ice-water, &c.; no stimulating substances of any kind should be permitted. Care should be taken, even in the administration of food and of drinks, that the patient be not subjected to exertion to receive them; they should be given to her while in a horizontal position. Her food should also be of the same character with her drinks—thin sago, tapioca, gruel or panada,—in neither of these should wine or any other liquor find admission; they can be rendered agreeable by lemon-juice, sugar or nutmeg. All animal food, or the juices of them, in

the commencement of flooding, should be forbidden. Let whatever is given be given cool. Absolute rest of every member of the body should be enjoined.

The officiousness of nurses and of friends very frequently thwart the best directed measures of the physician, by an overweening desire to make the patient "comfortable." This consists in changing of clothes, "putting the bed to rights," or altering her position; all this should strictly be forbidden. Conversation should be prohibited the patient, and all unnecessary company excluded. Much mischief is frequently done by the injudicious talk of by-standers, who delight for the most part in the marvellous, and but too often relate the histories of cases which are every way calculated to appal the already but too much alarmed patient; this kind of gossiping should be peremptorily forbidden, even at the risk of giving offence, rather than permit it to the certain injury of the sick.

Having established a proper system for the repose of the patient, and the government of the attendants, we should next determine the propriety of blood-letting—this becomes very often of high importance, especially at this division of our subject; plethora is a usual attendant at this time, nay, may be, as we have hinted, the very cause of the alarm. Blood should be taken from the arm, in a quantity proportioned to the exigency, remembering we do little or no good by the operation, if we do not decidedly diminish the force of arterial action; let the pulse rather sink under the finger than otherwise. Its repetition must be regulated by circumstances, recollecting, however, that hæmorrhage is sometimes maintained solely by exalted arterial action. The latter fact is shown by the following case of Dr. Dewees, *(Syst. of Midwifery, p.* 410.)

We were called to Mrs. B. in January, 1796, whom we found much exhausted by uterine hæmorrhage, in the fourth month of gestation. She had several days previous to our visit returns of flooding, which were little attended to. The usual means were now employed, and for the time being the discharge was arrested; this was early in the morning of the 16th. She remained very well until five o'clock P. M. at which time she had another return of flooding; we were instantly sent for, and living but a few steps from the patient, were very quickly at her bed-side. She was found to be flooding very rapidly; the pulse was very active, and the eruption of blood appeared to be preceded by a slight rigor, followed by high arterial action. She was instantly bled from the arm, and the abdomen covered with ice

and snow, until there was a reduction in the force and frequency of the pulse; so soon as this took place, there was an abatement of the discharge. This condition was followed by slight alternate pains in the back, shooting towards the pubes. Forty-five drops of laudanum were now given, and strict injunctions were left that the patient should be kept as quiet as possible, and in case of the return of the flooding, that we should be instantly apprized of it. 17th. A.M. eight o'clock, we were called suddenly to our patient, as she again had a return of fever, with hæmorrhage.—She was again bled, &c.

In this manner did matters proceed for several days. It was found now that the arterial exacerbations observed no regular period, but whenever they occurred there was uniformly a return of the flooding, and none but during this state of excitement. With a view to interrupt this condition, or to abridge it as much as possible, we placed a young gentleman at the patient's bed-side, with orders to bleed the moment he perceived an increase of pulse; this was accordingly done, and from each bleeding there was a decided advantage—the loss of five or six ounces of blood was sure to put a stop to the uterine discharge in the course of a few minutes, and sometimes would prevent its appearance when promptly used. By proceeding in this manner to the 23d, the patient was entirely freed from this distressing complaint. She was bled seventeen times, and lost by computation at the time, one hundred and ten ounces of blood in the course of seven days. She gradually gathered strength, and was safely delivered at the proper time.

The *acetate of lead* should now be given in doses, and in frequency, proportionate to the violence of the discharge. From two to three grains, with half a grain of opium, may be given every half-hour, or hour, or less frequently, as circumstances may direct; or in case the stomach be irritable, a very efficient way of exhibiting it is by injection into the rectum—twenty or thirty grains may be dissolved in a gill of water, to which we would add a drachm of laudanum; this must be repeated as occasion may require. If pain attend, more opium should be given than if there be none, and this must be repeated until a decided impression be made upon the uterine contractions, or until its exhibition be profuse. The application of equal parts of cold vinegar and spirit of any kind, may be applied to the lower part of the abdomen; or what is still better, a large bladder two-thirds filled with ice and water.

The discharge from the vagina when very profuse, will not always yield however to these remedies, and if it does not, it will very soon become highly alarming. To save even a few ounces of blood is a duty, and sometimes highly important:

should the means just recommended fail in moderating or stopping the threatening symptoms, no time should be lost in employing the *plug*. The best we have ever used is a piece of fine sponge, of sufficient size to fill the vagina. It should have pretty sharp vinegar squeezed from it several times, with a view to clean it, as also that it may be imbued with this acid; it should then be introduced into the vagina, and suffered to remain until its object is answered.

Previously, however, to the introduction of the sponge, it is well to examine the state of the mouth of the womb: the conditions we may find this in will very much govern our decision and prognostics. Should it be found entirely closed, and of its original shape, we may, notwithstanding the profuseness of the discharge, and even the presence of pain, still entertain a rational hope of preserving the child; but if, on the contrary, its form be altered and the mouth opened, we are pretty certain it will be sooner or later cast off. But neither of these conditions are to affect our conduct as regards the bleeding, for this is to be staunched though we are certain the embryo will be lost.

Much error is sometimes committed under the impression that the *fœtus*, or child, must be expelled, and that nothing can be done advantageously for the woman until this is effected. A hæmorrhage has been known to be suffered to continue almost to the complete exhaustion of the patient, because pain was considered essential to this end, though with each return of which a large coagulum would be expelled, or the discharge has been augmented by improper attempts to aid its expulsion. Both of these mistaken methods cannot be too severely reprehended—one for blameable supineness, and the other for rash interference. Whatever may be the rapidity of discharge in such cases, it is, we think, usually under command by the use of the PLUG, (see p. 98.) It should be instantly resorted to, and its effects will be as quickly perceived. If the *ovum*, (or child), can be preserved, we save a prodigious expenditure of blood: if it cannot, we not only do this but obtain a most important truce, during which time nature achieves the separation and final expulsion of it without the further exhaustion of the patient. For Leroux tells us that when the womb is opened, the plug is not only useful in stopping the discharge, but in stimulating the uterus to a successful contraction. We

also must seriously forbid all attempts to remove the *ovum*, (or child), so long as the greater part of its bulk is within the cavity of the womb, lest we break through its covering and evacuate the *liquor amnii*. We must let no false theory get the better of multiplied experience, all of which goes to prove the propriety of such a procedure: for it is agreed by the most enlightened men upon this subject, that it is mischievous to effect it, and unfortunate when it happens spontaneously. The reason is obvious. The *embryo* is expelled, and its involucrum is retained; the consequence is, that the flooding is by this means perpetuated, and much pain and inconvenience, if not danger is experienced, before it is thrown from the womb. We must therefore repeat it as a rule, that the *ovum* is never to be pierced before the commencement of the fifth month, unless the flooding is very profuse, the pains very urgent, and the mouth of the womb pretty well opened.

Sometimes after the expulsion of the *fœtus* (or child), the bleeding is maintained by the secundines, that is, by part of the investing membranes, and it may be by the after-birth, being retained in the womb: in this case we should remove the after-birth as quickly as possible; but here is the difficulty. At the early periods of pregnancy, which are comprehended within the first five months, the uterine cavity is too small to admit the hand, or a couple of fingers, or even one, therefore any attempt to deliver it by the hand alone will almost always fail. If this mass is entirely within the uterus, or even nearly so, the mouth of the womb will be found most generally so much closed, even at the fifth month, as to prevent the introduction of the fingers so as to hook down the after-birth; and as we descend from this to the second month, or lower, it will be naturally so small as to prevent the introduction of even one. When this is attempted, (by the inexperienced especially,) it is sure to end in disappointment. Sometimes a portion of the after-birth is felt without the mouth of the womb. If its greater bulk be so situated, we can sometimes remove the whole of it by pressing it between the two fingers, and withdrawing it, and thus put a stop to the discharge, but we are rarely so fortunate.

In such cases, a small wire crotchet, that is, a small wire hooked at the end, has been used to bring it away, with entire

success. This instrument is very simple in its construction as well as in its mode of action. The manner of using it is as follows: The fore-finger of the left hand is placed within or at the edge of the mouth of the womb; with the right we conduct the hooked extremity along this finger until it is within the uterus; it is gently carried up to the fundus, and then slowly drawn downwards, which makes its curved point fix in the after-birth; when thus engaged, it is gradually withdrawn, and the after-birth with it. The discharge instantly ceases.

In illustration of what has just been urged, we will relate one case from *Dewees' System of Midwifery, p.* 416, which cannot fail to convey instruction:—

We were called to Mrs. H. on the 3d of August, 1807, who was flooding at the third month of pregnancy—pains were frequent and violent. Large doses of the acetate of lead and opium were ordered, together with cold applications externally—the mouth of the womb was a little open, and the *ovum* protruding. Quiet, cold drinks, &c. were ordered, and we took our leave. Returned at twelve o'clock, three hours after our first visit—the hæmorrhage not abated; the pains increased; the os tincæ more dilated, and the *ovum* more tangible. At three o'clock P. M. the *ovum* opened spontaneously, and the *embryo* escaped—flooding violently; pains trifling; fainting frequent; pulse very small and quick; the after-birth in part engaged in the mouth of the womb. A stimulating injection was ordered, with the hope it would bring away the after-birth. Four o'clock P. M.—The injection failed in the object for which it was given; hæmorrhage continues; faintings frequent; pulse scarcely perceptible. The after-birth was now removed by the wire crotchet—the flooding ceased instantly; the subsequent symptoms were very mild.

Sometimes, when the *ovum* is ruptured, and the *embryo* has escaped, and left its involucrum behind, the hæmorrhage may not be violent, but may be of long continuance, at least as long as this mass may remain, (see pp. 127 and 208). In such cases, where time is not so precious to the safety of the woman, the ergot of rye, (see p. 125), has been administered in twenty grain doses, with very decided and prompt advantage.

In the state of *extreme exhaustion and fainting** from the

* "There is no greater error in midwifery practice, than the opinion that fainting is a desirable event." That it is sometimes useful must be admitted; "but who in his senses would wait for this as a remedy in bleeding from the womb, since it can only occur from the extreme weakness of the patient? Who would wait for this forlorn effort of nature, when he could command a plug? If

loss of a large quantity of blood in miscarriage, opium and other cordials are undoubtedly indicated. Opium is here often of uncommon service, and in the extremest cases which we can meet with, is sometimes instrumentally the means of saving the life of the patient. It possesses a superior power in allaying that peculiar irritability and restlessness, &c. which, in such instances, seem to threaten the life of the woman.—Some remarks on this subject may be seen at p. 81. We may therefore give directly in these extreme cases, half a tea-spoonful or a tea-spoonful of laudanum, in a little weak brandy and water, which may be repeated twice or thrice in twelve or eighteen hours, if requisite.

Some physicians have prescribed cordials and stimulants in the faintings usual in miscarriage, or, at least, they are very backward in employing them, but we must be careful not to hesitate too long on this subject in extreme cases, or it may cost the woman her life. Cordials ought not to be had recourse to immediately on the first fainting, but in the state of *extreme exhaustion* to which women are sometimes reduced by flooding, we think, as the experienced American physician Dewees observes, we are as certain of the propriety of the practice, as we are of any other; and we employ them, whenever the pulse is very much reduced, or extinct, the limbs cold, the breathing hurried and short, vision imperfect, and the voice almost inaudible, with the most decided advantage. They should be administered with caution, but with steadiness; and in such quantities as shall neither offend the stomach, nor invite too much re-action. In this we ought to persist, until there is evidence that the system will re-act;—so soon as this appears, we should desist from all stimuli, and not return to them but when a fresh necessity is created.

Good brandy and water, sal volatile, or liquid ammonia, with or without laudanum, are the best cordials.

During the use of cold applications to the abdomen, if there is much exhaustion, or the cold is applied for a long time, a bladder or bottle of hot water ought to be put to the feet; and

the practitioner were absent during an exhausting flow of blood, and learnt, before he could exert his skill, that the patient had fainted, he might suppose it to be useful for the time ; but he should never look upon it but as a last remedy." *Dewees' Midwifery*, p. 429.

care should be taken not to wet the bed. When the ordinary modes of applying cold to the abdomen fail of effect, pouring cold water *from on high* on the abdomen of the patient, as from the spout of a large jug or watering pot held in the lifted hand of a person standing on a chair, has frequently arrested the hæmorrhage instantly.

Women who have lost much blood from miscarriage, or after a proper delivery, often subsequently complain of noises in the head, head-ache, and there may be at the same time a full throbbing pulse; but this is not the pulse which indicates a necessity for further loss of blood. The proper remedies are forty drops of laudanum in water at bed-time, and a purging draught, as No. 6, on the following morning.

The means of preventing abortion are principally such as tend to invigorate the frame, and improve the general health of the patient, the chief of which are—sufficient exercise in a salubrious country air, cold bathing, or sponging the whole body with cold or tepid water, a nutritious diet of easily digested food, but small in quantity, the proper regulation of the bowels, and the use of quinine, calumba, or the aromatic sulphuric acid.

It has of late been very much the custom in medical practice to confine women of a delicate frame, who have more than once miscarried, to a recumbent position, from the first month through the whole term of pregnancy. We ought not to lose sight of the fact, that young women who have their full quantity of blood, their flesh firm, their bodies strong and agile, and inured to exercise, scarcely ever suffer abortion, except from some violent occasion; whereas they are most subject to miscarry who are of a tender constitution, have lax muscles, a feeble pulse, and too little blood. In a very few cases this plan may succeed, but in the majority of cases I cannot at all approve of it. It is neither a rational nor a successful practice, for miscarriage is for the most part connected with debility, if not with deranged health, and the confinement thus imposed on the patient is evidently not at all likely either to increase the strength, or improve the health, but the contrary—it is sufficient to break down the health of any female, but can never restore it. In opposition to this plan, I advise asses' milk every morning, with a little seltzer or pyrmont water during

the day, and either the aromatic sulphuric acid, or a little quinine, cascarilla, or calumba, as circumstances indicate; to which should be added, airing in an open carriage, or riding on horseback, if practicable, with cold-water sponging or bathing. Mr. White says, (*Management of Lying-in Women*, *p.* 67,) "I have known short rides on horseback repeated daily procure success when total confinement would not; and have for a great number of years been sensible of the good effects of cold bathing, not only in preventing miscarriages, when every other method has been likely to fail, but other disorders which are incident to pregnant women, and generally attendant upon a weak lax fibre." Dr. Whytt, in his *Remarks on Nervous Disorders*, declares that he has known cold bathing of great service to several women, who chiefly from a weakness of their nervous system were liable to abortions.*

Tonic medicines very often will not agree with delicate females, when *the free use of cold bathing* will be of the most essential service, and this fact should therefore be remembered. Indeed, so convinced am I that delicate women may in general, by the free but prudent employment of cold water, be so invigorated as to be fortified against the recurrence of miscarriage, that there are few cases which I cannot commit to the salutary influence of cold water—air—and exercise, with the utmost confidence of a very favorable result. The lady should wash herself once or twice a day all over with cold water, and take a cold hip-bath (two gallons of water) at twelve o'clock daily, for eight minutes, walking after it, to prevent any chill.

Now and then the bathing to be recommended, is not that in which the coldest water is used, but water near the temperature of that of Buxton, about eighty degrees—this is the case with a few very tender, susceptible and peculiar constitutions. But in the case of women who appear to miscarry from the condition of the *uterus* being unfavorable to its extension beyond a certain point, as referred to at page 200, immersion in the *warm-bath* is more clearly indicated, and has been known fre-

* "If there be any reason to expect great weakness in the *uterus* and uterine vessels, from knowing the history of the woman, from her having been liable to profuse menstruation, and to all the other symptoms of weakness, the application of cold will be of great advantage in giving the proper tone to the vessels."—*London Practice of Midwifery, sixth edit. p.* 149.

quently to prevent abortion: from its soothing and relaxing qualities it allays the irritability of the organ in this state, and promotes its growth or enlargement.

I would add that, although it is not a desirable practice to confine women subject to abortion to a recumbent position through the whole period of pregnancy, yet it is advisable that they should observe uncommon care, and use a little more rest than usual, for three or four weeks, about the time at which they may have previously miscarried. The disposition (see p. 200) to miscarry at this particular time is often very strong, but if that time can be passed, the probability of escape is great. The diet at this time should be carefully regulated, and the bowels also, by the use of the mildest means.

OF A PARTICULAR KIND OF HÆMORRHAGE.

Sometimes the after-birth, instead of being in the cavity of the womb, is found fixed over the mouth of that organ. In this peculiar case, which presents *an unavoidable* cause of hæmorrhage, the loss of blood does not usually take place till between the sixth and seventh month—at this time the neck of the womb begins to be stretched, for the more complete accommodation of the child, in consequence of which a small portion of the after-birth will give way and be separated from the womb, which will be followed by a discharge of blood, commensurate with the extent of the lesion or separation, and the size of the vessels involved in this destruction.*

Sometimes the discharge of blood is preceded by slight and distant pains, but in other instances the patient may be surprized by a sudden and alarming issue of blood, without the slightest premonition.

Whenever any discharge of blood occurs at about seven or

* The vessels are largest towards the middle of the after-birth, (or *placenta*.) There is a great difference existing in the structure of the after-birth of pregnant women and that of brutes, which accounts for the fact of hæmorrhage less frequently occurring in brutes. In the latter the *fœtal* part separates from the maternal portion; while in the human subject the whole after-birth is thrown off entire after delivery, leaving the vessels with open mouths; so that when any part of it is separated by any means whatever, even before delivery, a consequent hæmorrhage attends, which is proportioned in violence and duration to the extent of the part so exposed.

eight months, we may suspect this to be the condition of the parts; and should it not be readily checked by the use of cold applications, rest, the pill of sugar of lead, (No. 21), &c. the mouth of the womb must be examined by the fingers, and in carrying the two fore-fingers up to the mouth of the womb, if the after-birth is there, a loose pulpy mass will be found to present itself. It will be easily distinguished from a coagulum of blood by its fibrous structure, and greater firmness. On being convinced of the existence of the after-birth over the mouth of the womb, our duty is most evident—the woman must be delivered by the hand. The proper time of attempting this delivery is, indeed, a subject of no small moment. Whenever the case demands the operation, on account of the danger of the bleeding, the state of the parts will for the most part allow it to be performed with safety, though not with equal facility.

We may also add, that when the mouth of the womb is either dilated or dilatable by the spontaneous operation of the organ, before the strength of the patient is materially impaired, then is the most desirable time to turn, by very cautiously introducing our right hand, (the woman lying on her left side), gently through the mouth of the womb, between one side of it and the after-birth, then getting hold of the feet of the child, and very gently bringing them down through the external opening, when the body and head follow of course. After waiting a little time the after-birth is usually expelled; if not, it should be expedited by rubbing the abdomen with the hand, or it may be carefully withdrawn by the hand.

This practice refers more especially to the hæmorrhage which occurs after the seventh month. In those cases met with previously to, or soon after the sixth month, nature will almost always effect the expulsion of the *ovum*, (or imperfect child), without the manual interference of the accoucheur—in these cases, then, our attention should be directed to the diminution of the bleeding by the means recommended under *Miscarriage*. (see p. 204 et seq.)

But it may be asked, If the mouth of the womb is only a little opened, and is very rigid, and the woman is suffering from loss of blood, what are we to do, seeing that we cannot as yet rescue her by turning the child? The answer is, the

means to restrain the hæmorrhage must be used, especially the PLUG, (p. 97—207), until the mouth of the womb becomes soft and dilatable, when the child may be turned without delay. In thus waiting patiently, in the use of the proper means, which almost always directly succeed in abating the discharge of blood, we shall rarely fail of success in turning the child, and rescuing the patient.

OF THE MANAGEMENT OF WOMEN IN LABOUR.

The process employed by nature for expelling the child and the after-birth, consists of the action of the womb and abdominal muscles, in order to overcome the resistance occasioned by the *pelvis*, and the soft parts, to the passage of the child's head through them. Labour in women is liable to be affected by the operations of the mind, in which they differ from the inferior animals; and it is well known that fear and want of confidence will disturb and retard, just as confidence and hope will facilitate, labour. It should be also noticed, that the exercise of the voluntary powers is capable of doing much mischief in an operation which the involuntary powers were alone intended, and are fully equal to accomplish.

Another considerable difference between parturition in women, and in the inferior animals, is in the structure of the after-birth, as we have already hinted. In the latter, the maternal portion of it continues attached to the womb after the birth of the young, being itself an excrescence from the womb; but in the human species the maternal portion of the after-birth being a newly-formed substance, consisting of cells, into which the vessels of the mother open, if by any accident any part of it should be separated from the womb, bleeding must ensue; which, indeed, must have been fatal to every woman with the birth of her first child, upon the separation of the after-birth, if nature had not wisely provided such a muscular structure of the womb as would, and does, by contracting the womb, in the generality of cases, effectually prevent the loss of blood.

The greater number of the evils attendant upon labour, depend upon an irregularity in some of the points above noticed;

therefore, the care and attention to these circumstances, constitute a great part of the practice of midwifery, the object of which is to prevent more than to remedy evils. Real difficulties or dangers in labour are very rare, especially in a healthy country life; and both may often be prevented by the prudent management of natural labours, as both may be, and often are, produced by ignorance and mismanagement.

A principal object in attending to women in labour, upon the principles laid down above, should be to regulate the exertion of the woman's powers, and to prevent those inconveniences which are likely to be produced by the violence of them.

THE TWO THINGS TO BE GUARDED AGAINST ARE—FATIGUE DURING THE LABOUR, AND FEVER AFTERWARDS.

The *first* may incapacitate her for finishing the labour, and may render the use of artificial means for delivering her necessary, when otherwise they would not have been required.

All waste of the strength is to be avoided by taking care that the woman does not employ her voluntary exertions in the course of the labour, which, if the parts are not prepared for the exit of the child, must be hurtful as well as inefficacious; and if they are, then such exertions will be unnecessary, because the womb possesses of itself sufficient powers, aided by the involuntary action of the abdominal muscles, to complete the labour, time being allowed and patience exercised. All attempts to increase the frequency of the labour-pains, either by stimulating the mouth of the womb, or by internal stimulants, should on the same account be discouraged.

Another reason for being careful to save the general strength of the system, and of the womb in particular, is, that if the powers should have been exhausted in the delivery of the child, there will either be an unfavourable separation of the *placenta* or after-birth; or if a flooding should supervene, from the detachment of any part of it, the uterus being greatly enfeebled, there will be no powers by which the loss of blood can be restrained, and fatal consequences may ensue.

The *next object* in conducting a woman through her labour is to guard against a fever after delivery. The violence of the exertions alone have a tendency to disturb and stimulate the whole frame very much. That this disposition may not be increased, her food during labour should be very mild in

quality, and easy of digestion. On this account, weak broths, gruel, or barley water are much to be preferred to solid food of any kind. For this reason we object very strongly to a practice which is still too common among persons in the middle and lower stations of life, that of taking during the labour a variety of substances rendered stimulating by being impregnated with spices, wine, or spirits. Nothing can be more false in principle, nor more destructive in its tendency. If a labour is going on well, there can be no occasion for them, and if ill, they are much more likely to do harm than good. If they do anything, they will most certainly increase the action of the heart and arterial system beyond that degree which the mere exertions of labour will produce; and this increased action will not subside when the woman is delivered. If there were any previous disposition to fever in her system, nothing is so likely to bring it into activity; and although the labour alone might not stimulate the constitution beyond what it could bear; or, in other words, although the increased circulation arising from the action of the uterus might gradually go off after delivery, yet if such means have been employed as tend still further to increase the action of the vascular system, a fever may be the consequence.

Accidental violence offered to the parts concerned in parturition will also sometimes lay the foundation of a fever; such as stimulating the mouth of the womb, either by too frequent examinations, or by attempts to dilate it. These practices, however, have of late years happily very much declined, indeed, are now only pursued by the most ignorant persons. It should never be forgotten that time and patience alone will overcome any difficulties which may arise from the natural rigidity of the mouth of the womb; and at the same time will do no injury either to the constitution or the parts of the woman.

Violence offered by the improper use of instruments may also become a cause of fever; therefore they ought never to be employed in any case, except where they are absolutely and indispensably necessary.

The influence of the mind upon a labour is not inconsiderable. The state of a patient's spirits will depend very much on the conduct of those who are about her; therefore the UTMOST CHEERFULNESS in the demeanour of her medical and

other attendants is of much importance, by which we do not mean a levity of behaviour, which suits as ill the situation of a woman in labour, as moroseness or ill humour, which, when exercised in the presence of a woman in pain, is little short of brutality, when she has evidently a strong claim to the soothing influences of kindness and compassion.

OF THE SIGNS AND STAGES OF LABOUR, OR DELIVERY.

I would first offer a few remarks on the term of pregnancy. Physiologists have not exactly decided what is the precise period a woman under the most favourable circumstances, carries her child in the womb. It appears, however, from the best calculations that can be made, that nine calendar months, or forty weeks, approaches the truth so nearly, that we scarcely need desire more accuracy could it be obtained. This cannot be considered rigidly exact, but it is sufficiently so as a general rule. There are many causes which may provoke the womb to contraction a short time before it might take place spontaneously, and we are of opinion there may be some which may procrastinate the period.

We have no certain mark to date conception from, consequently we cannot ascertain with precision the period the child resides in the womb. The cessation of the menses is the most common evidence upon this subject; but they must necessarily be liable to considerable variation; since perhaps we do not err greatly when we say, that the woman is eligible to conception at any part of the period of interval. The common opinion is, that the most favourable instant is immediately after this evacuation has ceased; as a general rule we have no objection to this, but it is liable to exceptions. Therefore the uncertainty of the moment in which conception takes place, will always embarrass calculation and confound speculation.

Some physicians maintain that the time of utero-gestation is fixed and admits of no variation, but the weight of authority is undoubtedly on the other side. Dr. W. Hunter said, "The usual period is nine calendar months, but there is very commonly *a difference of one, two or three* weeks. I have known a woman bear a living child in a perfectly natural way, *fourteen*

days later than nine calendar months, and *believe* two women to have been delivered of a child alive, in a natural way, above ten calendar months from the hour of conception." A similar testimony has been given by Drs. Merriman, Blundell, Burns, W. F. Montgomery, and other enlightened physicians, French and American, as well as English.

Many in the world would be wise above what is written, and vainly attempt to account for what is not to be accounted for, and which, indeed, if accounted for, could be of no service to mankind. Accordingly some have endeavoured to discover the principle of the action of the womb, and to assign reasons for the labour coming on at a particular period—all we at present know on this subject, and probably ever shall know, is, that it is an established law, and we may wisely close the consideration of this point by saying, in the language of the ancient physician AVICENNA, "At the appointed time, labour comes on at the command of God."

The principal signs of labour are—a subsidence of the abdominal tumour about two or three weeks before delivery, so that the woman may appear less in the ninth than in the eighth month of pregnancy, which is a good sign, because it shows that all the chief parts of the *uterus* are disposed to act properly;—a discharge of mucus from the vagina, with a relaxation and protrusion of the external parts, which are so great in some women, that they describe the feeling as if every thing was dropping through them;—a relaxation of the bones of the *pelvis*, which occasions a sense of uneasiness about the hips and thighs, in the ligaments of the pelvis, and causes an unsteady and vascillatory kind of motion in walking.

There is a great difference in the time of the appearance of these signs in different women, it being in some women several weeks, and in others only a few days, before the commencement of labour; but they universally take place, unless the labour be precipitated by some accidental influence; and the more perfectly these changes are made, and the longer the time of their preceding the labour, the more natural and kindly will the process generally be.

Natural labour may be divided into three or four stages. If we adopt the former division, *the first stage* will include the dilatation of the mouth of the womb, the rupture of the mem-

branes, and the discharge of its waters; *the second stage*, the descent of the child, the dilatation of the external parts, and the expulsion of the child; *the third*, the separation of the *placenta*, or after-birth, and its expulsion. This is a division at once natural and easy to be understood. Some physicians divide labour into four stages, thus:—*the first* is when the head of the child enters the *pelvis*, passing down as far as it can move without changing its position; *the second*, includes the period of the child's head passing through the mouth of the womb into the vagina; *the third*, the change which has taken place in the vagina and external parts; and *the fourth*, the delivery of the body of the child, and the expulsion of the after-birth.

It is not my intention in the present work to say much on the subject of Labour or Delivery, because it is a condition in which women in this country have the immediate assistance of professional men, and it is therefore unnecessary; but as this publication will, like its predecessor, the *Modern Domestic Medicine*, travel to distant and half civilized countries, where professional men cannot readily be obtained, a few words here may be of no small service to some who cannot procure better aid.

The able author of the *London Pract. of Midwifery, p.* 169, well remarks, "Women might be equal to whatever is necessary to be done, if they were properly educated; but they are not. They are ready enough to do; the mischief is, they" (very often) "do too much, and it cannot be prevented. By far the greater number of difficulties occurring in general practice are manufactured, arising from officious interference; thus it is we learn, that those who are in a state of nature, and perfectly uninterfered with by art, get better through labour than those who are assisted by people who have only the infancy of science for their guide": the author might properly have added—or who live in crowded places, and in an artificial manner, although they may have the assistance of the best instructed men. "We are taught this," (the author continues) "by the sacred writings, where at the time Pharoah ordered all the male children to be destroyed, he was told the Egyptian children could soon be exterminated, because the labours were long and tedious, the women being the most important in the

nation, having the lords of the land for their husbands; but the midwives at the same time represented the difficulty of destroying the Hebrew offspring, for the women had all easy, safe, and short labours, and why?* only because they were left entirely to nature, and had no assistance; so that from this we find, that in natural labours our object should be to put the woman as early as possible into a state of nature."

Every labour is called natural in which the head of the child presents, which is completed within twenty-four hours, and requires no artificial assistance. Should either of these three leading marks in the definition of a natural labour be wanting, it must come under some other denomination; thus, if any other part except the head should present, the labour would be preternatural; should it be prolonged beyond twenty-four hours it would be difficult; and if the circumstances were such as to require assistance, although the delivery might be completed within one hour, yet it would be called an anomalous labour.

In the commencement of labour, women often experience some anxiety,—one or two rigors, with or without a sense of actual cold in the inferior extremities, or of the whole body,—repeated inclination to make water and pass motions,—a slight bloody discharge, and labour pains. The true pains of labour show themselves in various ways, in different patients, but usually begin in the loins or lower part of the back, surround the abdomen, and terminate at the upper part of the thighs. These pains are usually periodical, with intervals of ten, fifteen, twenty minutes, or more; and the more the pains are multiplied the better it is for the patient. Since severe pain is dif-

* *Exodus, ch.* i. *v.* 19. It was not merely because they had no assistance from the midwives, but chiefly because they lived in a natural manner, and generally fared sparingly, and laboured hard—a condition which universal experience testifies to be favorable to safe and easy labours. Besides this, we certainly ought not to overlook or disregard the influence of the *special* favour shown by God to the children of Israel. They were a *peculiar* people, and enjoyed *peculiar* privileges and immunities, as all such people do. Their government was a *Theocracy*; —a line of demarcation was drawn around them from the beginning by God himself; it was not only a line separating them from all the other nations of the earth, but also one which embraced the choicest of God's mercies, both spiritual and temporal, made over and secured to them as their own rightful and inalienable inheritance. "Happy art thou, O Israel: who is like unto thee, O people saved by the Lord, the shield of thy help, and who is the sword of thy excellency!" *Deut. ch.* xxxiii. *v.* 29.

ficult to bear, I would for the encouragement of pregnant women remark, that no woman in labour ever had a pain, depending on her labour, which was in vain. It is not true that women in this situation often have unprofitable pains. They may not be equal to the accomplishment of the effect we desire, or at the time we wish, but every pain has its use, as preparatory to, or absolutely promoting, the effect; and the observations and advice of Dr. Denman on this subject, merit serious attention. "As we are not able," (he says, *System of Midwifery, p.* 190, *seventh edit.)* "to comprehend every possible cause of every state, by endeavouring to remove what appears to be one slight ill, it often happens that we occasion many, and those of greater consequence. Therefore, whether the pains which any woman in labour may have, produce an immediate effect or not, it is our duty to wait with patience, provided there be no tokens of danger; because the natural order of proceeding requires a succession of pains, and artificial attempts to dilate the parts would be injurious."

The power and effect of true pain cannot be promoted by any of our efforts, and ought not to be attempted; and there is no good in a patient's helping themselves, as it is called, by urging with all the voluntary force they are able to exert beyond the dictates of nature. A labour is a regular process of the constitution, and we may be assured that the best state of mind in which women can be at the time of labour is that of submission to the necessities of their situation;—those who are most patient actually suffer the least, and it is certain that if they are resigned to their pains, it is impossible for them to do wrong, and that attention is far more frequently required to prevent hurry, than to forward a labour. I very much approve of the following sentiments of that able accoucheur the late Dr. Denman, *(System of Midwifery, seventh edit. p.* 193,) "In every thing which relates to the act of parturition, Nature, not disturbed by disease, or molested by interruption, is fully competent to accomplish her own purpose; she may be truly said to disdain and to abhor assistance. Instead therefore of despairing, and thinking they are abandoned in the hour of their distress, all women should believe and find comfort in the reflection, that they are at those times under the peculiar care of Providence; and that their safety in child-birth is ensured

by more numerous and powerful resources, than under any other circumstances, though to appearance less dangerous."

The bed on which the woman is to lie is to be made so, that the woman may lie comfortably both in labour and after labour. A mattress is much better than a feather bed for her to lie on: upon this a blanket should be laid and a sheet, and upon that sheet a common red sheep-skin, or instead of it a piece of oil-skin or oil-cloth; upon this a blanket doubled to four thicknesses; and lastly, a sheet upon this four times doubled—this sheet is to be laid cross-wise, securing it to the bedstead by tapes.

We may now suppose that after the woman has been in labour for a few hours, and the mouth of the womb has gradually dilated; the intervals between the pains have become shorter and their force greater; the membranes are ruptured by the force of the pains, and the waters of the *ovum* or child are discharged in one large gush or stream, there is a descent of the child, the dilatation of the external parts, and finally the birth of the child.

The child being born, it does not signify how soon we tie the navel-string, provided the child breathes, kicks, and cries. To do this, we take half a skein of silk or thread, and place it round the chord about two inches from the body of the child, and we place the other half skein the same distance from that again, towards the mother, and the space between these ligatures is cut through with scissors—when the child is handed to the nurse to be washed and dressed.

Dry clothes are then placed under the woman. After the birth of the child, the womb contracts so as to contain only the after-birth; and these contractions being continued, the surface of the womb must naturally first loosen and then separate itself from that of the after-birth. The same contraction which detaches this mass from the adhesion to the womb also expels it. In ten or fifteen minutes after the delivery, the abdomen should be examined by placing the hand over it, when we shall discover the womb either contracted or uncontracted, the former of which is known by its hardness and size, it feeling like a ball, the latter by its being flaccid. If it is contracted, the after-birth will soon pass away, and we may pass the fingers of one hand up on the chord, which is held in the other hand, and

if we can feel the root of the after-birth, the separation is complete, and we have only to get it gently out from the mouth of the womb. Should the root of the after-birth not be felt, it is dangerous to pull the chord with any force, because it is still attached to the womb, and may produce inversion of that organ. We must then patiently wait a little longer; we may use friction over the region of the belly, and in a few minutes more it will generally come away, by our gently drawing the chord, or rather passing the two fore-fingers up to its root and hooking it with the finger; and when we have thus succeeded in bringing it down to the external parts, it is a good plan to grasp it with both hands, and give it several twirls, to twist the membranes, that they may be withdrawn from the womb whole. The advantage of this is, we prevent a stench by thus removing the membranes.

The after-birth being withdrawn, we slip it into a basin or pot, and send it out of the room. After this, we again apply dry clothes to the woman, and place the hand on the abdomen with the view of ascertaining whether the womb is contracted or not. If it is contracted, which we know by its being hard and round as a ball, it is a good sign; but if it is found flaccid, brisk frictions with the open hand, with the occasional grasping pressure of the fingers, should be instantly practised, and if these are successful, the womb will be found to harden gradually, as well as to diminish in size under the hand. At this moment, perhaps, there may be a sudden discharge of clots of blood from the woman, accompanied by some pain, which very frequently gives great alarm to the inexperienced practitioner, and renders him doubtful of the propriety of the plan he is pursuing; but so far from being alarmed at this circumstance, he has reason to rejoice, from its being a proof of the contraction of the womb. It is a good practice to continue the friction for some time, till the womb becomes very hard.

After the delivery of the child the first great object is, the establishment of its respiration; for the most part this takes place the instant it is in the world, and very often it cries, and even forcibly, so soon as the head is protruded through the external parts. But should it fail to do this, every attention should be immediately paid that it may be established. The child may be born feeble, (but not exhausted), by either the

delay in its delivery; by the compression of the chord; or from a delicate stamina: these several conditions may be attended by a pulsating chord, or one in which pulsation has ceased.

In all cases in which the chord still pulsates there is but little risk, as long as this action is maintained, and for the most part all that is necessary, is to remove every impediment from its mouth which might interrupt the passage of air to the lungs, and by dashing upon its little body some cold spirits or brandy; this almost instantly makes it send forth cries, which are most welcome to the accoucheur, and the reward of the suffering mother. But should there be no pulsation in the chord, the child's whole body flaccid, and especially if upon dividing the *navel string* but a drop or two of black blood issues from the cut, the case is desperate, but not absolutely hopeless.

We should in this case remove any mucus that may be in the mouth, *fauces*, or windpipe, by wiping carefully as far as we can reach with the little finger, armed with a piece of fine dry rag; by inflating its lungs, which may be done by holding its nostrils, and applying our mouth to that of the child, and forcibly attempting to expand its lungs, and then expelling the air from them by a gentle but pretty firm pressure upon the thorax;—by placing the child's mouth downwards and holding the body and hips higher than the head, at the same time gently shaking the child, so as to disengage any mucus that may be lodged in the windpipe, and permitting it to flow out of the mouth by making this the depending part—then cautiously wiping the mouth as just directed, renew the inflations and the suspensions alternately, until the mucus flow from the mouth; by proceeding in this manner, the child may often be restored. It is a circumstance worthy of remark, that owing to the tenacity of the fluid within the windpipe, we cannot at first force air into the lungs, but by a little perseverance we overcome this obstacle, and the mucus becomes sometimes so thinned, as to flow readily from the mouth, and at once relieve the child—this operation should never be neglected, nor should it be too soon given up, especially if we can excite a few pulsations of the heart or in the chord; these should be carefully examined after each attempt at inflation. The pulsation of the heart is best detected by placing the ear immediately over its region; that of the chord, by pressing it between the thumb

and finger close to the navel;—by the application of dry warmth by heated cloths frequently renewed; this precaution should be immediately had recourse to, and should be persevered in until the last moment. We much prefer dry warmth as an application to the child's body to the warm bath, which is so much relied on in such cases.

When the child shews signs of returning life, it is generally by a deep short sob, which may be repeated at longer or shorter intervals; but when we think the interval too long, we should renew the inflations, &c. Should respiration be restored, (but in a feeble manner), we should carefully guard against any thing like fatigue to the child; it should not be on any consideration disturbed by dressing it; on the contrary, it should be carefully placed in such a situation as to permit the frequent renewal of warm applications to it, which are of primary consequence to the little sufferer. Dr. Dewees says, "We have had more than once the mortification to see all our endeavours frustrated, and all our hopes destroyed, by an inattention to our directions on this point, though given as impressively as we well knew how."

The child may be born healthy and strong, (the chord pulsating briskly), yet it does not cry, because a mechanical obstruction from mucus prevents the ingress of air into the lungs. This mucus may be in the mouth or posterior *fauces*, or it may be in the windpipe. If the first condition obtain, we may entirely remove it by a piece of fine rag upon the little finger as just suggested; if the second condition, by suspending the child as just directed, which will seldom fail to give relief by the mucus running from the mouth. It is not necessary to have recourse to inflation while the pulsation in the chord continues, but when it stops before respiration is established, recourse must be had to inflation. When the child has made attempts to cry, we may succeed in giving full force to it by dashing its body with spirit or brandy, as directed above.

The child from a long delay in the passage, or having its neck tightly begirt with the chord, may be still-born; in this case its face will be black, livid, and swollen—the arteries may have ceased to beat, or may beat pretty vigorously. In these cases nothing can save the child from immediate death but instantly abstracting blood by cutting the chord—should the

pulsation have ceased, we may sometimes still succeed in drawing some blood by forcing it from the chord, and then employing inflations, &c.; if pulsation continues, we must abstract blood by also cutting the chord—the quantity to be drawn must be regulated pretty much by the effects: if respiration be established, we need draw no more, but until we see some signs of this about to take place we may abstract pretty freely, as this process most probably is interrupted by the congestive state of the brain, which can only be removed by a pretty ample loss of blood.*

OF THE MANAGEMENT OF WOMEN AFTER DELIVERY.

As the patient is delivered at a part of the bed distant from where she is to be permanently placed, the removal from one to the other is technically called by the old women "putting the patient to bed." This consists, first, in the entire removal of the wet things that may be about the woman, and substituting dry ones; second, in her being lifted or slid into the place where she is now to lie; third, in the application of a bandage or flannel roller round the abdomen, which is to be pinned or rolled as tight as the patient will find comfortable.

The application of a proper bandage is of great consequence after delivery, and I very much approve of Dr. Beatty's plan of bandaging, which he has made known in the *Dublin Medical Journal*, *Jan.* 1834. He says—

"This I consider a very important part of the treatment, for it at once insures an equal and firm pressure on the womb, and prevents its subsequent relaxation; while it leaves the practitioner at liberty to attend to the child. But the kind of binder usually employed, is very ill calculated to accomplish this end. It is commonly made of some straight narrow material, as a folded towel, a piece of linen, or, what is still worse, of flannel, any of which it is utterly impossible to apply in such a manner as that it shall keep its place, and exert the uniform pressure which is so desirable; as

* "When we look back at what has been said, we see that in labour a great deal is to be done, and still more is to be left alone. Nature is to be regarded as the sole guide; and where any person describes numberless difficulties that he has met with in practice, we may suppose that he either created the difficulties himself by mismanagement, or manufactured them while telling the story."—*Dr. John Clarke, in London Pract. of Midwifery, p.* 181.

from the shape of the woman's body it must slip up over her hips, and it finally runs into a simple cord round her waist, no matter how broad it may have been, or how accurately it may have been at first fastened.

"To obviate this difficulty, I make all my patients provide themselves with a binder, according to a pattern which I have constructed, and have found of the greatest use and convenience." This should be put on prior to the delivery. "It is made of jean or twilled calico, doubled, and broad enough to reach from the eighth or ninth rib to the *trochanters*,* with two long triangular pieces, termed in millinery gores, let in to enlarge the diameter below, and fit the hips just as female stays are made. It is furnished with a row of buckles arranged along one end, and at the other with a corresponding number of straps, made of the same material as the binder. The straps are about seven inches long, and are sewed, not to the edge, but about seven inches from it; so that when they are passed through the buckles the floating portion passes under the opposite end, and protects the skin from pressure. A very thin piece of whalebone, one-third of an inch broad, is inserted, so that when the binder is applied, it runs straight down the middle of the belly, from the chest to the bottom of the belly. A bandage such as this fits easily, without any unequal pressure when drawn tight, never shifts its place when made well and properly applied, and effectually accomplishes the object for which it is intended. I have employed it with several ladies who had been in the habit of using the common kind, and they invariably express the greatest comfort from its use.

"As soon as the child is expelled, and when the womb is felt to be well contracted, the binder may be tightened. It is best to begin with the middle straps, and proceed regularly downwards, after which the upper may be secured. The course thus pursued is admirably calculated to prevent the occurrence of the hour glass contraction of the womb—and the best security against that insidious and too frequently fatal accident, relaxation of the womb after delivery, accompanied by internal hæmorrhage."

Another bandage, which is of great service to women during pregnancy, and after delivery, is *Mr. Gaitskell's*. He has had vast experience in midwifery. It is made by Miss Grierson, No. 6, Bedford Place, Deptford Lower Road, and is sold by Watts, No. 17, Strand. Every married woman should have one, and ladies should purchase them to distribute among the poor. They cost only a few shillings, and last a long time. It is not only applied at the very commencement of labour, and thus prevents subsequent floodings and death, but it is of

* The large projections on each side of the top of the thighs, by which our hands are necessarily arrested in passing them quite down our sides.

great service in the eighth month to women whose abdomen is pendulous, and who have borne many children.

It may be asked, is every woman to be put to bed as soon as she may be delivered? We answer No—this "putting to bed" must be governed by the following circumstances: First, if the patient be very much exhausted by the severity of the labour, or by a previous flooding, or any other circumstances that may render her very feeble or faint, she must not be removed until she recover some of her spent strength, should this require even several hours; second, should the patient from her exertions during labour, or the heat of the weather, be in a perspiration, she should not be disturbed until this has gone off entirely; third, should there be too great a discharge or flooding, the patient must not be moved until this is much diminished or stopped. But if neither of these conditions present themselves, this should always be directed to be done immediately, as they bear it better than if suffered to remain any time without it.

Of all women who die in consequence of child-bearing, by far the greater number are cut off by diseases after delivery, very few, with good management, dying during the act of labour. But although only a small proportion are destroyed during the time of labour, yet the foundation of diseases which come into action after delivery, is often laid in the time of pregnancy by improper indulgence of the appetite; hence patients become plethoric, and have their constitutions so disposed to disease, that nothing more is required than the exertions necessarily attendant upon parturition to produce it. If, however, the rules offered in the preceding parts of this volume be attended to, this disposition will be checked at least, and we shall have nothing to guard against after the woman is brought to bed but the immediate consequence of the labour itself, and the circumstances which always attend upon the puerperal state. It is impossible to believe, because it is inconsistent with the wisdom and mercy manifested by Almighty God in all his other works, that women should be so ill constructed that they must necessarily be liable to disease from the performance of a natural act, therefore we must attribute those cases in which disease is a consequence of labour to some mismanagement either before, during, or after labour. The two former have been already considered.

With respect to improper treatment after delivery, this is partly to be imputed to the accoucheur in some instances perhaps, but much more frequently to the woman herself, either using some indulgences of the appetite which are incompatible with her situation, or to the well meant but ill judged advice of her friends, or the obstinacy of bad nurses.

I need not observe here how much quiet and rest immediately after labour, must contribute to appease that irritation of the system which must be occasioned by the violent efforts of labour, and therefore of what great consequence it must be that all admission of company be carefully avoided. The patient should be laid in bed without being newly dressed, and above all things she should not be allowed to be in any but an horizontal posture. Some instances have been known in which the woman has died immediately after delivery, from being unable to bear an erect posture of body.* This is very well exemplified in the instance of bleeding from the arm, which many persons cannot bear at all without fainting if they be upright, and all persons can sustain better if the operation be performed whilst they lie down. Every woman must lose some blood when the after-birth comes away; and although the constitution will sustain the loss very well in a supine posture, yet an erect attitude is very unfavorable to carrying on the functions of life under such circumstances.

The great object in treating women after labour is to guard against fever; but as the constitutions of women vary extremely, so a different mode of treatment will be necessary to be observed in different women. In general it is better, I think, to avoid animal food of all kinds, till the stimulus arising from the secretion of the milk has subsided. But even this must be done with some limitations, because there are some very weak and delicate women, whom it is necessary to support by more substantial food than gruel and barley water, however proper

* "A gentleman attended a woman whose labour, though good, was not very short; when the child was born, and the after-birth came away, the friends of the woman wished to get her up, that she might be made clean and have the bed made. This the gentleman, knowing to be improper, refused, but at length yielded to the importunity of the women, who got the patient into an easy chair, and wheeled her towards the fire. When the bed was made, the next step was to lay the woman in it again; but upon turning to the chair, they found her absolutely dead."—*London Practice of Midwifery, p.* 316.

they may be for the strong and plethoric. In patients of the latter description, it is hardly possible that too low a regimen can be pursued, because it will have the effect of diminishing the milk fever in all cases, and of rendering them less liable to the attacks either of fever or inflammation. Breathing a pure air is very necessary; therefore the chamber in which the patient is confined should, if possible, be spacious and airy, a free ventilation should be allowed, the extremes of heat and cold should be equally avoided, and all impurities be constantly removed which might contaminate the air of the room.

Women after delivery, from the fatigue of labour, have naturally a disposition to sleep and to perspire. Great stress has been laid upon the necessity of keeping up perspiration, and with this intention they have been frequently plied with draughts of heating liquors. Now, however advantageous and natural easy and passive perspiration may be, nothing can be more detrimental to the recovery of patients, than the violent and active perspiration brought on by such means, and farther encouraged by a large quantity of clothes heaped on the bed, by drawing the curtains round it, and keeping a large fire in the room. This is not according to nature, and the consequence of such management will be, that if by any unavoidable accident the smallest exposure to cold should happen, a fever will almost certainly ensue, or if it should not, the continuance of such sweating will necessarily very much weaken, and render the patient almost incapable of becoming a nurse.*

But at the same time that it does not seem necessary to keep up sweating by such means, there is no occasion, and it would be unwise to attempt to counteract the natural disposition to a gentle and kindly perspiration, the first few days after parturition, especially as it is well known that it generally affects those who recover best.

Respecting the medical treatment of women after delivery, if they are perfectly free from disease, and will be governed implicitly by the rules suggested above, perhaps no medicines are absolutely required; but it has been usual, and it certainly

* If the woman is restless at night, she may take half a tea-spoonful of the sweet spirit of nitre, in three table spoonsful of camphor mixture. This forms a very good draught also in case of feverishness in the day, and when the skin is dry. A dry skin is carefully to be avoided in women in this condition.

cannot be wrong to exhibit some slight relaxant, as the saline mixture, every six hours, (No. 81, in the DOMESTIC MEDICINE; or the draught of sweet spirit of nitre and camphor mixture prescribed below,) which will comply in some degree with the views and intentions of nature; and if there should be any disposition to fever, it will be in some measure corrected. We are warranted by experience in saying, that those patients who have been thus treated, suffer less from the milk fever than those where it has been neglected. Of late years the exhibition of more powerful relaxants, as preparations of antimony, has, at least with many practitioners, superseded the use of remedies which ought to be used, or none. But it is a question whether the interests of mankind have been served by such opinions, and general experience seems to prove, that there are some cases where advantage arises from such gentle remedies, and where those of a more violent nature would have done harm instead of good.

If the woman is feverish the day or two after delivery, you may give two table-spoonsful of castor oil, particularly if you have reason to think the bowels are confined and loaded. On the third day, you are invariably to give a purge, consisting of senna and salts, or castor oil. Sometimes if there is much after-pain, and likewise loaded bowels, you should administer three table-spoonsful of castor oil, and twelve drops of laudanum with it, which will relieve the pain, and yet operate on the bowels.

OF AFTER-PAINS.

Probably the only complaint which really calls for the use of medicine in the early part of the puerperal state, is what is called *After-Pains.* These rarely occur after the birth of first children. They are spasmodic contractions of the womb, either to reduce its volume to its original size, or, (which is more common,) to expel some coagulated blood contained within its cavity. They may indeed be in some degree prevented, or lessened, by not hastening the delivery of the after-birth, by allowing it to be expelled by the contraction of the womb. By such conduct the womb will be more contracted than if the after-birth be hastily delivered, so that there will be no room

for the formation of coagula there, or at least much less room. With all the care which can be taken, after-pains will sometimes take place. If they are intended to answer either or both of the purposes mentioned above, it is evident that their operation is, upon the whole, salutary, and on that account they ought not to be prevented altogether. But they are sometimes so violent in their degree, that they effectually deprive the woman of rest. When this is the case, it will be advisable to give such a dose of an opiate at night as will procure sleep, such as thirty or forty drops of laudanum in water, or one-fourth of a grain of muriate of morphia in a pill; and either leave them to produce their effects during the day, or only give anodynes in such small doses, (about half the preceding doses,) as to diminish the sensibility a little, so that they shall be tolerable. Warm fomentations to the belly are much to be recommended—flannel bags filled with hot salt are excellent.

After the pains have been conquered by the opiate, give directly a black draught to open the bowels freely. No. 6, or No. 6A, will answer well.

Camphor will sometimes be a more appropriate remedy for after-pains than opium: it may be given in pills, containing five grains each, one or two of which may be taken frequently. If the woman is apt to be affected with head-ache, or sickness of stomach, after taking laudanum, then give her the muriate of morphia—or twelve drops of *black drop* in water.

After-pains are distinguished from inflammation of the womb, or other internal part, by their remission or going off—in the latter case the belly is painful to the touch, the lochial discharge is obstructed, there is usually shivering and vomiting, and the pulse is frequent, symptoms which are not present in after-pains. Should the after-pains be severe or protracted, they are sometimes more readily removed by a purgative than by opium.

OF THE LOCHIAL DISCHARGE.

Another subject to which the attention has been much directed in the treatment of women in the puerperal state, is the *Lochial Discharge.* This consists of the blood which either flows from, or is pressed out of, the extremities of the blood-

vessels which had supplied the cellular part of the after-birth with blood, and which upon the coming away of it open into the cavity of the womb.

Much pains have been taken to ascertain the average quantity of the lochial discharge which comes away, with a view to regulate it, especially as the foundation of many diseases has been conceived to be laid in the redundancy, or paucity of it. But when we consider what the nature of the evacuation is, the difference in the quantity will be found to vary very much, and not to be reducible to any rule. The quantity of the lochial discharge, as well as the attack of after-pains, may be much lessened by the prudent management of the after-birth: for it must be obvious that where the uterus is more contracted, there will be less, and where it is less contracted, there will be more of the lochial discharge.

The evacuation will be at first common blood, and afterwards, as the *uterus* becomes more contracted, and the vessels smaller, it will have the appearance of bloody water; then it is of a greenish colour, and resembles serum, and at last is simply watery, till the vessels at length becoming impervious, the discharge stops altogether. In the course of these changes the appearance of blood will return sometimes even after the serous discharge has begun, from any little irregularity of diet or exercise, which increases the quickness of the circulation and the force of the heart.

Those who have considered the lochial discharge as noxious, and have attributed disease to the diminution or suppression of it, have been very anxious to promote it by various means; but such alterations are commonly the effects, and not the cause of disease, and all such measures have been accordingly found rather detrimental than useful. If there be little or no evacuation of the *lochia*, and the woman be in health, no remedies are required; and if she be diseased, the means appropriated to the relief of her complaint will produce it.

In like manner the redundancy of the *lochia* is rarely a primary affection, but depends either upon a too great strength of the circulation, or upon great weakness. In the former, lessening the force of the action of the heart and arteries, and in the latter, strengthening the system by bark, bitters, vitriolic acid, and other astringent remedies, will relieve the morbid

state of the system, and the redundant discharge dependant upon it will cease, when the cause is removed.

The *lochia* are sometimes observed to be fœtid, and this has often been supposed to be a proof of disease. But fœtor of the *lochia* often depends upon accidental circumstances, where there is certainly no disease, such as a small portion of the maternal part of the after-birth left behind, or portions of the *decidua*, which putrify and come away, or the coagula of blood which had been formed in the extremities of the veins and arteries of the *uterus*, (especially if it had not acted very strongly at the time of expelling the after-birth,) and which, putrifying and coming away, give a fœtor to all the rest of the discharges.

In some cases there are pretty regular feverish paroxysms, especially towards evening, such as a quick full pulse, with considerable heat of skin; a furred tongue; constipated bowels; a whimsical appetite; disturbed and unrefreshing sleep; pain in the back, attended with a too abundant *lochia*, which continues too long. It may thus continue beyond the twelfth or sixteenth day, and then we are called to endeavour to reduce the feverish action and check the discharge. A purge, as No. 6, should be given directly, and repeated every other day, if the symptoms do not yield; the patient must be confined strictly to a vegetable or milk diet; all bodily exertions prohibited, and the bedroom must be kept cool and well ventilated. In very severe cases, four or six ounces of blood may be taken from the arm. Afterwards the pill No. 21 may be taken thrice a day, the bowels being still carefully regulated.

Of the Time of Rising from Bed. It may be expected that something should be said here concerning the time when women should rise from their bed, and be allowed to sit up after delivery.

Great stress has been laid by some on the propriety of women sitting up very early with the intention of giving a free discharge to the *lochia*, lest by its retention in the *uterus* it should be productive of mischief. But some doubts may be entertained as to the propriety of this practice, when it is considered that from the direction of the *vagina*, it is hardly possible that the *lochia* should be retained more than the menstrual discharge. If this be true, then it seems that some inconveni-

ences may arise from the practice of early rising, of which one, and that not inconsiderable or unimportant, deserves attention, which is the danger of *procidentia uteri*, or a falling down of the womb, being brought on; for the weight of the womb, in the early days after delivery, will prevent the broad ligaments from restoring themselves, which they will be much more likely to do when the woman is in an horizontal than in a perpendicular posture of body. A prolapsus of the womb is a very serious complaint to all women, and especially to the poor; this class ought therefore to be more careful than they are to avoid an early rising and getting about.

For this very reason, if there were no other, it seems right that no woman should rise before the end of the third or fourth day, and if they be weakly or delicate subjects, they should observe an horizontal position even longer. It is not at all necessary that they be kept absolutely in bed. A sofa, or the outside of the bed, may be quite as advantageous, and will weaken less. When they begin to sit up, they should not remain in that position so long as to fatigue, else it will do much more harm than good. Indeed, I believe an horizontal posture is always best, for at least a fortnight after delivery, by which means all the inconveniences above-mentioned will be avoided.

In some cases, a few hours after delivery the woman finds herself unable to pass urine. This must be attended to, and we should give a draught composed of one drachm of sweet spirit of nitre, ten drops of laudanum, and an ounce of camphor mixture, and likewise use warm fomentations to the abdomen. If these means prove unsuccessful, the water must be drawn off by a surgeon without delay.

OF DIFFICULT AND COMPLEX LABOURS.

I have already treated of the management of ordinary labours, and it is requisite that I should offer a few remarks and directions on the subject of difficult labours, with the view to help those living in remote parts, where medical aid may not be easily procured.

The principal causes of preternatural or difficult labours

which I shall notice here, are,—*Convulsions—Descent of the Navel String or Chord—Cross-births, or presentations of the hands and feet,*—and *Hæmorrhage after delivery.*

PUERPERAL CONVULSIONS

Occurring after the labour has commenced are very alarming. They may attack a woman at any period of pregnancy, but are most frequent after the sixth or seventh month.

The *chief symptoms* are, a hurried respiration, head-ache, ringing of the ears, giddiness, and other signs of fulness in the vessels of the head, followed by quickly-repeated spasms of the face, eyes, arms, legs, and indeed of the whole body; the respiration at length becomes almost suspended, and there exists a peculiar hissing and catching noise; the vessels of the neck are distended and beat violently, and the patient is thrown into the most frightful contortions. No force can restrain the woman, and the distortions of the countenance are dreadful. After the female has continued under the power of the convulsion for a longer or shorter period, she foams at the mouth, and snores like an apoplectic patient, indicating great fulness about the brain. These symptoms are succeeded by a heavy sleep, out of which the woman awakes astonished on being told what has happened, not at all aware that she has been in a fit; and this may be repeated.

Puerperal convulsions always occur in paroxysms occurring periodically like labour-pains, the intervals between them growing gradually shorter and shorter.

They bear a strong resemblance to epileptic seizures, but are more violent. There are two distinct *causes* of them; namely, 1. A fulness, or some organic affection of the brain; 2. An irritable state of the nervous system. The former may be called the apoplectic species, the latter the hysterical.

Treatment. Almost the whole of our practice in this malady consists in bleeding largely from the arm, acting freely on the bowels by means of purgatives, as No. 6, giving at the same time a purgative enema, and dashing cold water on the face and neck of the patient. From sixteen to twenty ounces of blood may be drawn at once from the patient's arm, and this may be repeated according to the violence of the fits and the

strength of the patient, ever remembering that if the patient is of a full habit, strong, and has symptoms of great fulness about the vessels of the head, she may often be bled with great advantage again and again, unless the symptoms entirely disappear. The bowels should be emptied without delay, and if the power of swallowing is impaired or lost, one or two drops of *croton oil* may be placed on the back part of the tongue, and will generally purge—it may be repeated in two or three hours, if requisite; at the same time, the hair of the patient should be shaved or cut off, and rags dipped in vinegar and water, or the coldest water laid over it, and frequently renewed.

Dipping a bunch of feathers, or the hand, into a large basin of the coldest water, and dashing it over the face and neck, is another valuable remedy, and assists most essentially in arousing the patient. This should always be had recourse to on the threatening of convulsions, and will, together with blood-letting, often succeed in preventing them.

When women, previous to delivery, are subject to a sense of fulness about the head and neck, giddiness, a sensation of weight when the head stoops forward, imperfect vision, and the dancing of bodies before the eyes, sometimes dark, at other times luminous, we should be on our guard, and order a little blood to be lost from the arm, an active purge to be taken, and a very careful diet to be observed.

Should the convulsions *come on during labour*, while the mouth of the womb is little dilated and rigid, we should not think of attempting the delivery of the child, as it would necessarily be mischievous. Our first attempt should be to moderate the force and diminish the frequency of the convulsions, by blood-letting and the other means just now recommended, until the mouth of the womb has become soft and dilated; then, provided the natural powers are not sufficiently active to the finishing of the labour, we should proceed to turn.

Should the womb, however, be dilated or easy dilatable, and the convulsions threatening, especially if the pains are not of sufficient force or efficacy, we should, after a copious bleeding to diminish the injurious tendency of the convulsions upon the head, immediately proceed to the operation of turning.

Convulsions may continue after delivery, or even come on after delivery, although this is a rarer case. In such cases the

bleeding must be continued cautiously, with aperients and cold water, and a blister applied over the head, or between the shoulders, may be of much service.

I would here warn every pregnant woman against errors in diet, as well before delivery, as during labour and after it. How many women are speedily cut off from neglect of this advice alone! Recently, a lady in the author's neighbourhood fell a victim to it, leaving ten children behind to mourn and feel her loss. Up to the day, and even hour, on which she had been taken ill with the pains of labour she appeared extremely well, was in high spirits at dinner, about eight o'clock, and greatly relished the meal, partaking only too freely of too many things, and of things indigestible—half an hour after dinner labour-pains came on, and she had a safe and easy labour. But a few hours after, the effects of her indiscretion were fully manifested; she was attacked with inflammation within the abdomen, which no treatment could check, and she died in about three days from the time of her delivery.

Stewed oysters are a thing to which pregnant and lying-in women sometimes take a fancy, and a more indigestible and pernicious food cannot be taken. Lying-in women have actually died speedily from their pernicious effects, and an instructive paper, by the late Dr. John Clark, on this subject, may be seen in the *5th vol. of the Transactions of the Royal College of Physicians. See also London Practice of Midwifery, sixth edit. p.* 278.

THE DESCENT OF THE CHORD OR NAVEL-STRING,

And its protrusion externally, is an important circumstance, not that it is of any consequence to the mother, for it adds no difficulty to the case, but because it may endanger the life of the child. The *funis*, or chord, is analogous to the pulmonary artery and vein in the ordinary subject, and the circulation through it, if stopped, produces death upon the same principle that suffocation does to a breathing animal.

The *treatment* must be adapted to the circumstances of the case. If we could do it, the chord should be put up, kept up, and preserved from the pressure; but the difficulty is to do this. The advice given by the author of the *London Practice*

of Midwifery, p. 257, is—"Let us suppose the membranes lately broken, and the mouth of the womb pretty fully dilated, the *chord* being down. The practice here will be to turn the child, and bring down the feet; this affords the best chance for saving the child's life. Suppose the head is in the *pelvis*, and the navel-string is pulsating in the vaginal passage, the best way is to return it, and follow it up with a long strip of cloth or handkerchief, and fully pushed up, so as effectually to prevent its coming down again: as this is the only chance that we have of keeping it above the *pelvis*, it should never be left undone; and at last the head will get so far down, that it can be delivered by the *forceps* immediately."

CROSS-BIRTHS

Are when the lower or the superior limbs, (or extremities, as medical men term them,) present.

Should the lower limb or limbs present, no fear need be entertained of a successful issue—the labour will ordinarily be finished by the powers of nature alone. When the feet present, the child is gradually expelled, and the chief attention will be demanded to the navel-string. When this chord comes down after the navel of the child has descended below the mouth of the womb, it should be gently drawn slack after it, in order that it may not be stretched or pressed upon in the passing of the child.

Suppose the lower limbs present, and after some time the chord ceases to pulsate? Then you must lay hold of both feet, and *very gently* draw down the child till the shoulders appear, and the chord is free from pressure. If it now pulsates again, your mind will be relieved because you will know the child is alive, and you may wait quietly and see whether the natural efforts of the mother will not expel the child; but should the chord not pulsate again, then you had better *gently* draw down the child still till the whole is born. The toes should point to the back of the mother, in drawing the child down.

If the breech present, no alarm should be taken. It is better in ordinary cases to let nature work her own way, and every thing will go on well, while we endeavour to prevent undue

pressure on the navel-string, by such simple means as an ordinary good judgment will point out. As soon as a part of the navel can be felt the finger should be passed up, and a little of the navel-string brought down outwards so as to prevent pressure.

In the passing of the child in this way, when the feet appear externally, the most favorable direction of the toes is downwards, pointing towards the back of the mother, so that the *back part* of the head of the child should be *uppermost*, the face pointing downwards; and, therefore, if this is not the position of the child as it passes down, so soon as the breech of the child is born, we must grasp it, and gently turn the child round in this direction during a pain.

When all but the shoulders are born, if they obstruct the speedy complete birth of the child, the practitioner may pass one of his fingers up over the shoulder to the bend of the elbow, and bring down one of the arms, directing it downwards and backwards, and then the other arm may be drawn down.

If the navel-string continues to pulsate, we need not hasten the extraction of the head, but if this string is pressed upon, and the pulsation becomes feeble or is extinct, we should carefully hasten the extraction of the head, by placing the fore-finger of the left hand into the mouth of the child, and depress it on the chest, by which means, if we take hold of the nape of the neck with the right hand, we shall assist in the more speedy birth of the child.

In the case of the arm presenting, the rule is, that the *shoulders and arm will never pass together—the labour may continue, but the situation of the child must be altered, or the woman will be worn out and die.* We must turn, or alter the position of the child in the womb, because it is a presentation that cannot be delivered.

It is generally considered that the most proper time for turning the child is when the mouth of the womb is so far dilated as to admit our fingers and knuckles, and before the membranes are broken, and the waters come away; because then we turn the child "as if in a bucket of water," which gives us a great advantage. In turning, the hand, previously anointed with lard or oil, is to be cautiously and gradually passed upwards to the mouth of the womb, letting it rest occa-

sionally if a pain comes on, or any difficulty is presented to its passage—in this gentle cautious way we are to carry the hand up to the mouth of the womb, gently dilate it, introduce our hand into its cavity, and search for the feet of the child, take hold of them, and bring them down.

In these circumstances, should the woman be full of blood, and feverish or restless, and the womb very irritable, and contracting with great force, (especially if the water has been discharged,) we shall succeed better in turning, by first drawing a little blood from the woman's arm, twelve or sixteen ounces, and afterwards giving her sixty drops of laudanum in water—this will moderate the force of the womb, and the hand can then be introduced with greater facility.

OF HÆMORRHAGE AFTER DELIVERY.

Hæmorrhage from the womb after delivery, and the extraction of the after-birth, is often an alarming, and sometimes a serious event. It arises from a flaccid condition of the womb, and an open state of its great vessels, and in regard to its treatment, the principle ever to be borne in mind, and acted upon, is, that CONTRACTION OF THE WOMB IS THE ONLY REMEDY FOR HÆMORRHAGE FROM THAT ORGAN. I have already remarked on the great value of friction and pressure with the hand as a stimulus in inducing this contraction, and would here again recommend it to be practised directly any hæmorrhage occurs after delivery. The large flaccid womb should be courageously but cautiously grasped, and well rubbed until it is found to contract under the hand, when the bleeding will be arrested, especially if we have recourse to the use of cold as advised at p. 211. Dr. Dewees, the very able practitioner of midwifery in Philadelphia, strongly recommends friction over the abdomen in these cases, and Dr. Beatty, of Dublin, states (*Dublin Medical Journal, Jan.* 1834,) that this excellent practice was pursued by his father, with great success, during a long practice of forty-five years—indeed, all able practitioners agree on this point. The following case related by Dr. Beatty, in the *Dublin Journal*, is both interesting and instructive:—

"Early impressions are very lasting, and therefore I have a vivid recollection of the first case of serious uterine hæmorrhage I ever witnessed; I was called in the middle of the night to a patient, who had been attended by a very young man, a student of midwifery. The labour had been natural and easy, but after the birth of the child, and before the expulsion of the placenta, a deluge of blood escaped; and when I arrived there was not only a sea of it under the patient, but also a stream along the floor, that had issued from the foot of the bed. I found the attendant pale as a corpse, and almost frightened to death, with a bucket full of water beside him, and numerous cloths soaked in the same, which he diligently applied to the external parts; notwithstanding which the bleeding still continued. The woman was blanched, the pulse failing at the wrist, she was tossing her arms about, and crying out for more air. On passing my hand over the abdomen, and feeling the *uterus* large and flaccid, I immediately exerted all my force in grasping, and firmly pressing this organ downwards into the pelvis, and very soon found it contracting forcibly under my finger. At this moment a rush of coagulated blood took place, which nearly extinguished the little remaining spark of life in the attendant, but was matter of great consolation to myself, as I took it for a token of having succeeded in my endeavours. In this I was not deceived, the *uterus* had fairly contracted, and the hæmorrhage was at once arrested. I kept up the pressure on the *uterus* with my left hand, and passed the fore-finger of my right into the vagina, to ascertain the state of the placenta, which I found now lying loose in that passage, from whence, after having put on a tight binder* it was easily removed. The woman recovered; but she had lost so much blood, that some days elapsed before she could be pronounced out of danger."

Don't meddle with the after-birth by pulling, but wait till it is expelled by the natural contraction of the womb. Of course, if it lies close on the external orifice you will gently withdraw it. When a woman is known to be subject to bleeding after delivery, we should give a full dose of laudanum—40 drops in water—immediately after delivery, and excite the action of the womb by rubbing over it with the hand.

After floodings, especially if they have been large, the patient ought not to be moved for many hours, but allowed to remain *perfectly quiet* for as much as twelve or twenty-four hours.† This rule is of great consequence.

* The proper binder is described at page 228.

† "I state to you again, that by yielding to the entreaties of the patients or their friends, and suffering a removal of the body from one side of the bed to the other, the women themselves making no exertion, but being lifted like the dead, I myself in two cases occasioned such a disturbance of the vascular system, that I really thought they would have expired."—*Blundell's Practice of Midwifery, p.* 470.

OF TWIN-CASES.

It can very rarely, if ever, be known that a case of labour is a twin-case, until after the birth of the first child; we may then suspect this to be the case; *first*, when the child is small, compared with the size of the belly of the mother, and the quantity of water discharged; *secondly*, if the swelling of the abdomen has not subsided as much as if it were a single child; and we are sure of the fact, if, *thirdly*, the child may be felt through the parieties of the belly, and there is a renewal of labour-pains.

The substance of the directions necessary to be given on this subject is,—*First*, that where there is more than one child, the after-birth must never be brought down till the last child is delivered, because if any force is used so as to detach a part of the after-birth from the womb, we produce a flooding.

Secondly, that after the birth of the first child, a little time should be given to the woman to recruit herself, and she should have a little gruel.

Thirdly, that if the pains pretty quickly ensue, and the presentation is natural, the mother must not be interfered with any more than in an ordinary labour, as she will then be soon and safely delivered.

Fourthly, if there is a continued suspension of labour-pains, the frictions over the abdomen recommended at page 224, should directly be had recourse to, with a view of exciting pain in order to the expulsion of the second child.

Fifthly, if there should be flooding after the expulsion of the first child, we must pass our hand up into the womb directly, and take hold of the feet of the other child, and gently deliver it.

Sixthly, if on making an examination with the finger after the delivery of the first child, the second is found to present its shoulder or hand, it must directly be turned, as just advised.

Seventhly, after the expulsion of both children the after-births must be managed as advised at page 224.

OF THE MILK FEVER.

Nothing can be more self-evident than that nature, or rather the God of Nature, in the peculiar formation of women, intended that every mother should suckle her own child. With a view to this, a great determination of blood is made to the breasts during pregnancy, which thence become considerably enlarged, especially near the time of delivery. This increased circulation will sometimes occasion a secretion of milk before labour in such quantity, that it will run out of the nipples in great abundance; more commonly, however, the secretion begins after delivery, and goes on most rapidly, about the third or fourth day, whence the breasts become enormously distended and very painful. The irritation of this sometimes produces a great degree of fever in the system, which begins often with a violent rigor, and is followed by a severe hot fit, and a profuse degree of sweating; and, during this time, the breasts are full, hard and painful, which distinguishes this from more dangerous fevers. In some rare instances delirium has taken place during the continuance of the milk fever. When it is not combined with any other disease, it scarcely ever continues more than twenty-four hours.

It may be conceived then, that very little is necessary to be done to prevent or cure a disease so short in its duration, and in itself of so small importance. But notwithstanding that, simply considered, a fever of this kind will require little medical assistance, yet, as when once excited, it may be kept up by other causes, it is right to prevent it from arising, and to suppress it directly upon its attack.

The remote *causes* of sharp attacks of this fever may be many and various; such as cold, which, by contracting the diameter of the vessels, renders them less pervious; plasters, spirituous or hot applications to drive back the milk, heated rooms, too many clothes, excess or imprudence in diet, &c. A predisposing cause in some women is, such a firmness and imperviousness in the milk-bearing tubes, in an irritable habit of body, as impedes and obstructs the flow of milk into the breasts,

whence, perhaps, it is, that it is generally most violent in the first lying-in.*

Treatment. Evacuation by purging seems to produce more effect than any other means which has been employed in the way of prevention or cure; and it is a principle never to be forgotten, that milk fever rarely happens where proper care has been taken to preserve a regularity of action in the intestines. It is of the utmost importance, let the rank or situation of the patient be what it may, *to give a purge on the third day*, as No. 6, or 6 A. For many weeks before delivery, the bowels of a woman are not properly emptied of their solid contents; and the quantity that thus accumulates is sometimes very astonishing. Should the purge not operate, an *Enema*, which may consist of a pint of thin gruel and two ounces of castor oil, must be exhibited the same evening; after which not a day should be allowed to pass without a stool being procured, and this strict attention should continue for the first fortnight or longer.

By this means the blood is driven to the intestines from the breasts, whence the secretion becomes less, and the constitution is less apt to be stimulated. Even after the fever has begun, the same treatment will succeed in diminishing it. After free evacuation by purging, a saline draught (No. 17) should be given, and repeated every four hours, till the frequency of the pulse, heat, and thirst have subsided.

* Mr. White says, (*Treat. on the Management of Lying-in Women, p. 57, third edit.* 1785,) "The small flat nipple which lies buried in the breast is generally occasioned by the tight dress, which has for some years been so constantly worn in this island by the female sex of all ages, and of almost all ranks—the most laborious and necessitous alone being excepted. This dress, by constantly pressing upon the breast and nipple, reduces it to a flat form, instead of that conical one, with the nipple in its apex, which it ought to preserve; and the nipple is buried in the breast, and contracts adhesion.

"Parents cannot be too cautious in this article of dress. It is a matter of the greatest consequence to their daughters whenever they are in a puerperal state. The tightness of the stays is alone sufficient to do much harm; but they are also often made hard and unpliable by packthread and whalebone, which must greatly increase the mischief."

OF INFLAMMATION OF THE BREASTS AND ABSCESS.

Though I esteem it a matter of great consequence that every woman should give suck to her own infant, yet there are some who, from particular circumstances of their situation in life, from great delicacy of constitution, or from some defect in the nipples, cannot suckle; and there are others, who for some reason or other will not discharge the duty as mothers to their children.

In any of these cases, the blood flowing abundantly to the breasts, the milk is secreted; but not being consumed by the child, it distends the *tubuli lactiferi*, (tubes carrying the milk,) which therefore inflame.

Beside these causes of inflammation of the breast, there is another, which is the application of cold. Whether this immediately produces its effects on the breast, or whether it only acts by making a change in the constitution, of which the inflammation of the breast makes a part; or whether none of these is the case, and the cold produces a feverish disposition, which is terminated by an inflammation of the breast, brought on in consequence of the increased circulation, or whether sometimes the one takes place and sometimes another, it is not of much consequence here to inquire. It is sufficient for our present purpose, that we know that cold is frequently a cause of inflammation in the breasts.

The first symptom which the patient feels, is generally that of a small lump in some part of the breast, which is painful to the touch. In a few hours this enlarges so as to occupy more of the gland, and sometimes the whole breast partakes of the inflammation, becoming hard and tender. The swelling either of a part, or the whole of the breasts, does not depend entirely on the absolute quantity of inflammation, but partly on swelling of the surrounding parts, and it will be found to yield to the impression of the finger, especially at the lowest part.

After the inflammation has remained some days, the skin covering the part affected assumes a red colour, and this redness is more or less diffused, according to the extent of the part affected with disease. Soon it will be found that one part

becomes more prominent than the rest; the skin there is thinner from internal absorption, and more particularly tender than at any other place. At length it breaks by one or more small openings, through which the matter contained in the abscess is gradually discharged, if the orifice be dependent, till, the whole being emptied, the inflammation subsides, the formation of pus is at an end, or much diminished in quantity. Milk, either pure, or mixed with a serous or purulent fluid, then flows out of the orifice, which at length closes.

Sometimes, however, such abscesses left to themselves, have not so favorable a termination. A larger quantity of skin becomes interested in the disease; several orifices are formed, which afterwards, by ulceration of their edges, break into one, so that the cavity of the abscess becomes more exposed, and is longer in healing.

On other occasions, the orifice not being at the lowest part, the matter, by its pressure, produces ulceration below, and another orifice takes place at the lowest part, which discharges the remainder, and then closes.

During the progress of this disease in the breast, if it be extensive, the constitution sometimes becomes affected with febrile symptoms, more especially in full habits. The pulse will become hard, full, and strong; the tongue will be white; there will be great thirst, sometimes pain in the head, and restlessness. When the whole breast is inflamed, the pain is sometimes almost intolerable, and so violent, as to deprive the patient entirely of sleep. After the pus is formed in it, frequent and sometimes violent shiverings ensue, till it is discharged either by a natural, or an artificial opening.

This complaint having been by many considered to be a deposition of redundant or hurtful milk, which, if carried back into the constitution, might induce other more violent and dangerous diseases, such as puerperal fever, swelled legs, inflammation of the *uterus*, and even mania; we are not surprised to find that practical men, misled by such opinions, have been afraid of stopping it at the onset. All their intentions have therefore been usually directed to the forwarding of the suppurative process, and giving a free evacuation to the pus, when formed, by making a large opening; it has, therefore, been usual to recommend the application of emollient and ano-

dyne fomentations and poultices to the inflamed part, during the inflammatory state, both to give ease to the patient, and to hasten the formation of matter.

But the general, and certainly the best opinion now is, that there is no good reason why this inflammation should be allowed to run on to suppuration, if it can be prevented. Much present and future inconvenience will be spared to the woman, if the cure by resolution be attempted at first.

If she should be of a strong constitution, and the symptoms of fever or inflammation be considerable, bleeding from the arm will be necessary, and also evacuation by purging, in order to diminish the quantity of blood, and the strong action of the vessels. To further the same intentions her food should be very spare and simple.

The next object is to diminish the circulation in the part. Blood should therefore be taken away by the application of three or four leeches, inclosed in a wine glass, till they have fastened on the most inflamed part, which may be allowed to bleed for some time after they have dropped off.

Evacuation, by purging every day, so as to procure two or three stools, besides its advantage on the general principle, is further useful, as it produces a determination to the intestines, and therefore necessarily draws off the circulation from the breasts.

The objections to the use of fomentations and poultices are— In the first place, by their warmth they drive a large quantity of blood to the parts, and in the next, by their relaxant power, they weaken the tone and strength of the parts to such a degree, that if matter should inevitably be formed, which, when it happens, is generally in large quantity, the abscess is always very difficult of healing, especially if a large opening should be artificially made into it. Instead, therefore, of such applications, it will, I think, be found that much more utility will arise from the use of solutions of lead, constantly applied cold to the part inflamed, even though it should be the whole of the breasts. The following is one of the best lotions which can be recommended:—

Take of acetate of lead (*plumbi acetas*,) one drachm; dissolve it in two ounces of distilled vinegar, and add one ounce of rectified spirit of wine, and five ounces of distilled water.

The advantages of this mode of treatment are several:

First. The cold repels the blood from the part, which is farther assisted by the astringent quality of the lead, and hence the inflammation is lessened.

Second. The breast is not weakened, so that if an abscess should be formed, it will be sooner filled up with healthy granulations.

Third. If the inflammation should be diminished, the woman will suffer less pain, and there will be less affection of the constitution.

Fourth. Matter will either be not formed at all, or if formed, it will be less in quantity, which will shorten the duration of the disease.

If there should be much pain, it will be right to employ a sufficient quantity of opium in a saline draught, every six hours, to appease the violence of it, or a quarter of a grain of the muriate of morphia may be taken, followed by the saline draught No. 17.

If this plan has been undertaken early, and pursued with strictness and punctuality, the inflammation will often be altogether suppressed. But if medical assistance should be called too late to produce a complete resolution, the extent of suppuration will be very much lessened.

Let us suppose, however, that the breasts should suppurate, and that the fluctuation of the matter can be distinctly felt under the skin, I would still advise that the above saturnine lotion should be continued, without intermission, till the abscess points, when, if the pain be not very great, and the skin do not seem likely to be very largely involved in the disease, it may be allowed to break spontaneously; and if the opening should be too small, it may be easily enlarged, by introducing a small piece of sponge tent, with a bit of thread fastened to it, to prevent it from slipping into the cavity, so as to make the orifice as large as the barrel of a small quill.

But, if the pus be very near the surface, and it should seem probable that the skin will give way very largely, or if the pain should be intense, then it is better to make a small artificial opening of the size mentioned above, with a lancet, and to discharge a part of the matter, which will give great relief from pain.

The whole should not be emptied in one day, because then the cavity will be large, and always fill with great difficulty, and take up a long time. On the contrary, supposing that it should appear to the surgeon that the abscess contains eight ounces, it is not right to let out more than half an ounce, or at the most an ounce, and then the orifice should be filled with lint or sponge tent till the next day, when it should be taken out, and more discharged. This should be repeated for several days, till the whole is evacuated.

The hardness remaining in the breast after the disappearance of the swelling, may be gently rubbed thrice a day with a little of the compound camphor liniment.

There is a peculiar mode of treating the milk abscess, or the inflammation and abscess occurring in the breasts of suckling women, which it is necessary to notice here. In this method, if the inflammation, threatening the formation of abscess, is not very soon subdued by the employment of the cold applications just mentioned at page 249, the whole breast is to be bandaged with broad strips of adhesive plaister. They are to be long strips reaching first from the shoulder over the whole breast to the region of the pit of the stomach, which are to be crossed with the same kind of strips, running from near the top of the breast bone quite under the arm. These, if well put on, afford a most agreeable support to the breast, and immediately give great ease to the patient. Sometimes, if the inflammation is not gone too far, they check and subdue it; if suppuration has taken place, or must take place, this treatment moderates it, and promotes a healthy and free discharge. We cannot wonder that persons unacquainted with the course of the disease under this plan of management, imagine that it is likely to check the proper formation of matter, and to confine it when formed, when our object should be to ripen the abscess, and afford a free exit for its contents; but in reality neither of these evils, nor any other that I am aware of, attend its adoption. On the contrary, from what I have witnessed, it appears at once to assist in the ripening of the abscess, in the free discharge of the pus, and in the relief of pain. In the relief of suffering, it certainly almost equals our desires, and surpasses ordinary belief, exerting in this respect a full effect, while fomentations, poultices, and anodynes, carry with them the mere shadow of it.

This bandage is usually allowed to remain undisturbed for two or three days, when it may be removed, the breast washed and cleaned, and the bandage reapplied; and in this way the treatment may be persevered in for weeks, if necessary, till the cure is complete.

In the beginning, if the breast is heated, the whole bandage may be frequently wetted with cold water, or a spirit lotion.

This novel plan of treating the present disease is, I believe, nearly or quite the same with that pursued by a practitioner in my neighbourhood—Mr. Scott, of Bromley; and if it generally succeeds so well as I have lately witnessed it to do, it unquestionably merits universal adoption.*

It is worth while remarking here, that the use of pressure, by means of plaister, is of uncommon service in almost all chronic abscesses and ulcerations, and is too much overlooked in their treatment.†

The adhesive plaister here recommended may be procured from Mr. Winstanley, Druggist, Poultry.

OF INTESTINAL FEVER.

When we consider the augmented sensibility of the system of lying-in women, and the delicacy of particular organs in their state, we are not surprised that they are very liable to febrile affections; hence we have not only the slight ephemeral fever called *weed*, and the malignant puerperal fever, to be noticed subsequently, but likewise an intestinal fever, which is dependant on derangement of the bowels. This is more severe

* I have lately seen a case of abscess in the female breast which was treated on the more common plan of fomentations, poultices, &c., but which the family thought it better to exchange for the strapping; this offended the attending surgeon, who quitted the patient, considering it improper, and her condition almost hopeless under the exchange. The lady however recovered surprisingly well, and instead of continuing to suffer for months, which is no uncommon occurrence in the other mode of treatment, was in a few days able to attend to her domestic duties, and at the end of three weeks might have been said to be well.

† "From experience I can speak highly of the effect of pressure. In a case of deep and extensive scrofulous ulceration of the breasts, of above fourteen years standing, the part assumed a healing tendency in a few days after the application of a graduated pressure, and was completely cicatrized in rather less than six weeks; and I could mention many other successful cases."—*Mackintosh's Practice of Physic, vol.* ii. *p* 432.

than the *weed*, and lasts longer, while it is by no means so severe or dangerous as the puerperal fever.

It usually comes on about the seventh or eighth day after delivery, with most of the ordinary symptoms of moderate fever, namely, frequent pulse,— hot skin,— thirst,—white slimy tongue,—nausea and sickness,— throbbing and confusion in the head. There is also present, flatulence, disturbed sleep or rather slumbering, and troublesome dreaming. In the beginning, there is no tumour in the belly, and no fixed pain, but stitches or griping; in some cases the bowels are costive, in others loose, but *the motions are always fœtid and discoloured.* After a short time, the belly becomes full and soft, as if inflated. The lochial discharge and the secretion of milk are not usually obstructed. In some cases, there are present symptoms of nervous irritation, as vertigo, palpitation, starting, &c.

It is worthy of particular remark, that *the eye and countenance of the patient are nearly natural.* This fever usually lasts from a few days to a fortnight.

Distinction. Where there is much inflation of the bowels, and much pain, on the side of the patient, and little experience on the part of the medical attendant, this fever is liable to be mistaken for the puerperal fever; but the swelling, in the intestinal fever, precedes pain in the bowels, and the symptoms are much relieved by purgatives. The pain in this fever does not commence in the region of the womb, and is but little aggravated by pressure; the tongue is much furred; there is thirst and head-ache; and the attack is usually preceded by evident signs of derangement of the bowels, such as flatulence, and then pain, stiffness and other signs of topical inflammation, nausea, constipation or diarrhœa. There is likewise a marked difference between the eye and countenance in this fever, and the puerperal; the countenance, in the latter being pale and ghastly, the eyes without animation, and the lips and angles of the eyes white, while there is little alteration from a natural condition in these respects, in the intestinal fever.

Treatment. The chief indication in this disease is to evacuate speedily the offensive matter from the bowels, and to prevent its re-accumulation; and this must be done by the prompt administration of an emetic of a scruple of ipecacuanha powder, in water. After its operation, the saline draught,

No. 17, may be taken thrice a day; and in three hours after the operation of the emetic we should administer a purgative powder, consisting of a grain of calomel, and ten grains of jalap, in some jam, to be followed directly by the draught No. 37—all to be repeated as often as the bowels become costive, or the stools offensive. It is usually a good plan to give the purgative every other morning.

Should there be any griping, or a tendency to looseness, an opiate clyster, consisting of a pint of thin starch, and a teaspoonful of laudanum, may be injected, or two grains of Dover's powder may be taken with fifteen grains of the compound powder of chalk, in pimento or any other aromatic water.

The food must be very light, consisting of beef tea and bread, sago, tapioca and arrow-root, with bread, plain biscuit, gruel, caudle, and such like. With some patients ginger wine and water forms an agreeable and useful drink. If much debility attends, a little good sherry wine may be tried after a few days, and when the tongue becomes clean, small doses of calumba powder, or infusion of cascarilla, may be given thrice a day. But above all things, the bowels must be attended to, and kept freely open; and if the secretions notwithstanding continue vitiated, the pill No. 21 may be taken every night, at bed-time.

OF PHLEGMASIA DOLENS, OR THE SWELLED LEG OF LYING-IN WOMEN.

This is a painful and often a protracted disease, occurring commonly a few days after delivery, though sometimes as late as a few weeks. It generally takes place on one side only, at first, and the part where it commences is various; but it usually begins in the fore and lower part of the abdomen, or groin, on one side, or in the hip or top of the thigh. In this case the patient first perceives a sense of pain, weight and stiffness in some of the above mentioned parts, which are increased by every attempt to move the *pelvis* or lower limb. If the part be carefully examined, it is generally found rather fuller or hotter than natural, and tender to the touch, but not discoloured. The pain increases, and in most cases is very severe; it extends along the thigh, and when it has subsisted for some time, the

top of the thigh, &c., become greatly swelled, and the pain is then sometimes alleviated and accompanied with a greater sense of distension. The pain next extends down to the knee, and is generally the most severe on the inside and back of the thigh, in the direction of the internal cutaneous and crural nerves; when it has continued for some time, the whole of the thigh becomes swelled, and the pain is a little relieved; the pain then extends down the leg to the foot, and is commonly most severe in the direction of the posterior tibial nerve. After some time the parts last attacked begin to swell, and the pain abates in violence, but is still very considerable, especially on any attempt to move the limb. It being now swelled throughout its whole extent, appears perfectly or nearly uniform, and it is not perceptibly lessened by an horizontal position, like an œdematous limb. It is of the natural colour, or even whiter; is hotter than natural; excessively tense and exquisitely tender when touched; when pressed by the fingers in different parts, it is found to be elastic, little if any impression remaining, and that only for a very short time.

This disease not uncommonly begins with coldness and rigors; these are succeeded by heat, thirst, and other symptoms of fever. Symptoms of irritation of the womb supervene, and constitutional disturbance of a low typhous character is present in many instances.

The duration of these *acute* local symptoms is very various; sometimes they subside in two or three weeks, yet the limb is left in a powerless state. Unhappily, it occasionally happens that after the swelling abates in one limb, the other is attacked in a similar way. Sometimes suppuration takes place in one or both legs, and ulcers are formed which are difficult to heal.

The remote as well as the immediate *causes* of the disease are involved in much obscurity. The ancient opinion was, that it was caused by a deposit of milk in the part, hence the French call it "*depôt du lait.*" White, of Manchester, ascribed it to inflammation and obstruction of the lymphatic vessels; Trye to inflammation of the lymphatic glands in the groin; Dr Hull to a peculiar inflammation in the muscles, cellular membrane, and interior surface of the skin. Each of these practitioners wrote on the disease. The general opinion among physicians now is, that it is owing chiefly to inflammation of the *iliac*, *femoral*, and

uterine veins, but they differ in regard to which of these veins the disease commences in, and which are chiefly concerned in the production of the phenomena.* The investigations of modern practice have, however, thrown great light on the nature of this malady, and amidst all the difference of opinion existing even amongst those who have seen much of it, it is highly probable that the majority of instances are owing to venous inflammation.

Treatment. There being commonly great constitutional disturbance present, with local inflammation, and a disordered state of the bowels, the treatment principally consists in abstracting blood from the affected limb,—the use of lotions or poultices,—saline and diaphoretic medicines,—and a skilful attention to the bowels, with a view of improving their secretions. If the symptoms of inflammation or constitutional disturbance are great, I would advise twenty-four leeches to be immediately applied to the upper part of the thigh, near the groin, and the bites to be subsequently fomented with flannels, wrung out of hot water; the application of the leeches being repeated, if necessary, in one, two, or three days, according to the severity of the symptoms. Afterwards, during the day the patient may apply the common spirit lotion, made by adding one table-spoonful of spirit of wine to six table spoonsful of water; or if this does not suit the state of the limb, warm bread and water or fig poultices may be tried.

The bowels must be regulated by taking the mild pills No. 19, or the compound decoction of aloes, every day, every other day, or as occasion may require,—the following pill (or the pill No. 98, in the Domestic Medicine), being taken every night, with the view of allaying pain and irritation, inducing sleep, and improving the state of the secretions.

Take of blue pill, extract of hemlock and extract of henbane, (*prepared in vacuo,*) of each half a drachm; tartar emetic, one or two grains. Mix them well together, and divide into eighteen pills; take one pill every night, or twice or even thrice in the course of the night, if the pain and irritation are severe.

* The reader will find further information on this subject in Dr. Davis's Observations, in *Trans. of the Medico-Chir. Soc. vol.* xii.; Dr. Lee's Observations in vol. xv. of the same work, and in his *Researches on the Treatment of the Diseases of Women, p.* 116. *et seq.; Cyclopædia of Practical Med. vol.* iii. *p.* 340; and *Johnson's Medico-Chirurgical Review, No.* 37, *p.* 58.

A little of a cooling saline mixture, No. 38, may be taken whenever the patient is much heated or restless during the day.

The pain and irritation are usually so severe that the patient will require a mild opiate to relieve these symptoms; for this purpose we may give a quarter of a grain of muriate of morphia, in a pill, two or three times in the twenty-four hours, if the pill of extract of henbane and hemlock above prescribed is not sufficient—or twenty drops of Battley's solution may be given; or an opiate injection may be used for the purpose. Of course the freedom with which opiates are administered must be determined by the degree of irritation and the state of the constitution, for persons of a full habit will not require or bear so much as those of a spare one.

The diet should be regulated according to the circumstances of constitutional vigour or delicacy, and the previous condition of the patient. If delicate, a generous but mild diet must be allowed, or the patient may sink from exhaustion.

The limb must be preserved in the horizontal position, and after the symptoms of local inflammation have wholly subsided, we ought to be careful in not having recourse too soon to stimulant applications. As soon as the limb can bear it, I advise friction with a little olive oil to be tried thrice a day, for from a quarter to three quarters of an hour, as the disease will permit. The rubber must *feel his way*, beginning with the friction for ten minutes, and advancing slowly to a longer period, and after a few days he may make trial of the soap liniment instead of the olive oil. Bandaging the limb with a laced bandage is very desirable, and in one case of the disease the painful swelling was much relieved by puncturing the skin in different parts with a fine needle.

Two cases of *phlegmasia dolens* successfully treated with *iodine* are to be found in the *Lancet*, *vol.* i. 1832-1833, *p.* 102. They were treated by Mr. Bacon, of North Walsham. This substance is likely to prove very serviceable in the disease, but the doses of iodine there given were too large. What would be the effect of *liquor potassæ* in those cases which resist the treatment described above? I have reason to think it merits notice.

OF PUERPERAL, OR CHILD-BED FEVER.

This is so called because it takes place soon after delivery. It generally occurs on the second or third day after delivery, and its course and symptoms are nearly as follow: shivering, frequency of pulse, oppression, nausea, or vomiting, pain in the head, particularly over the eye-brows; sleepless nights, and occasionally delirium; pain in the belly, which increases, and sometimes a tenderness, which renders even the weight of the bed-clothes distressing; a general fulness of the belly, which in some cases makes the patient nearly as large as she was before delivery, when the breathing becomes oppressed; the countenance usually is pale and ghastly, the eyes without animation; if the face is flushed, the cheeks are covered with a broad patch of deep red, whilst the brow, and other parts, are cadaverous, or covered with perspiration. The whole features indicate anxiety and great debility; there is great dejection of mind, and languor, and the patient lies chiefly on her back; the skin is clammy and relaxed, not very hot; the tongue is white at first, but soon becomes brown, and uniformly thrush appears in the throat, and extends down the gullet; the bowels are often at first bound, but afterwards, especially about the third day, they become loose, and the stools are dark, fœtid, and often frothy; the urine is dark coloured, has a brown sediment, is passed frequently and with pain; the lochial discharge is diminished, and has a bad smell; the secretion of milk is suppressed.

The pulse is from the first very frequent, and is at this period fuller than in simple inflammation of the *peritonœal* lining of the belly, but it soon becomes feeble; the degree of pain, its seat, &c. vary in different cases, in some it evidently begins in the womb, never going off entirely, yet suffering sudden and great increase, accompanied with a sense of bearing down, and the region of the womb is painful, particularly towards one side. In other cases, the pain is first felt about the lower ribs on one side, and is accompanied by cough; sometimes severe pain attacks the groins and extends down the thighs.

As the malady advances, the pulse increases in frequency

and weakness, the swelling of the belly also increasing rapidly in the worst cases; but the pain does not always keep pace with the swelling. The difficulty of breathing is much increased by the enlargement of the belly. If the disease proves fatal, the strength vanishes, the pulse becomes tremulous, the stools are passed involuntarily, hiccup sometimes takes place, and the patient passes from time into eternity usually about the fifth or sixth day of the disease. Low delirium or stupor sometimes precedes death; in other cases, the mind continues unimpaired to the last, and the patient is carried off in a convulsive fit.

The earlier this disease attacks after delivery, the greater is the danger, and few women recover who have the belly much swelled.

This disease on account of its almost uniform severity and danger, and often dreadful fatality, is unquestionably the most important of all the diseases to which lying-in women are subject; yet its *causes*, and especially the *causes* of the malignant character it sometimes assumes, are involved in deep obscurity. Any injury done to the womb, and likewise hæmorrhage after delivery, seem to predispose to it; exposure to cold and moisture, and various irregularities of diet soon after delivery, may be reckoned among its causes: and sometimes it is epidemic, being most frequent and most fatal in hospitals, and then occurring after rapid and easy, as well as after more painful labours. When epidemic, many professional men have thought it contagious, while others deny its contagious nature.

Professional men differ in regard to the *immediate* cause of the disease, many considering it to be "inflammation of the *peritonæum*, conjoined with the operation of some debilitating poison, more or less contagious," which is Dr. Burns' opinion, (*Principles of Midwifery, eight edit. p.* 562): while others, as Dr. Lee, (*Medico-Chir. Trans. vol.* xv. *p.* 405,) say, "That inflammation of the *uterus* and its appendages must be considered as essentially the cause of all the destructive febrile affections which follow child-birth, and that the various forms they assume, *inflammatory*, *congestive*, and *typhoid*, will in a great measure be found to depend on whether the *serous*, the *muscular*, or the *venous* tissue of the organ has become affected." It is universally admitted that when it proves fatal, dissection

affords unequivocal proofs of inflammation of one or more of the pelvic and abdominal viscera.

The profession have been evidently much in the dark respecting the nature and proper treatment of this dangerous malady, and this I believe to arise from their neglecting the study of *the diseased conditions of the blood*, which form the subject of remark at p. 83.

Distinction. Sometimes the spasmodic contractions of the womb called after-pains, and especially irritation of the intestines, (page 253) have been mistaken for puerperal fever. The *great and rapid depression* in this fever, *the peculiarly anxious appearance of the patient*, and the *very feeble pulse*, are perhaps the most characteristic symptoms. If an epidemic exists among lying-in women, this will assist us very much in our distinction.

Treatment. It is necessary to divide the treatment into, 1. That required where the symptoms of a very acute inflammation are present, accompanied with considerable physical energy; and 2. That called for when the symptoms of inflammation are not so clearly marked, there existing signs of great depression of the vital powers, and it may be an enfeebled constitution.

1. *In those cases where the constitution of the patient is robust, or good, the symptoms being those of very acute inflammation, and the disease not epidemical*, from twenty to twenty-four ounces of blood should be drawn from the arm directly, and should the pain be but slightly relieved, one or two dozen leeches should be applied to the lower part of the belly, and when they have fallen off, the bleeding encouraged by warm fomentations, or, which is still better, by covering the bites with a thin warm bread and water, or linseed meal poultice. At the same time, in severe cases, four or five grains of calomel should be given combined with a grain and a half of opium, or with ten grains of Dover's powder, and repeated every three or four hours, until the symptoms of inflammation are evidently relieved. After the first dose of the calomel and opium, I advise the cathartic draught No. 37 to be taken, a lavement consisting of a pint of warm water and an ounce of castor oil being likewise administered. Should these not operate freely in a very few hours, they must be repeated.

After a free evacuation of the bowels the patient often expresses herself much relieved.

The following remarks of Dr. Burns, (*Principles of Midwifery, eighth edit. p.* 555,) in reference to the treatment of the *acute* cases of this disease, are so judicious and valuable, that I cannot do otherwise than extract them, without alteration or limitation: "If the pulse, (he says,) continue above a hundred in a minute for twenty-four hours after delivery, there is reason to apprehend, that some serious mischief is about to happen; and therefore, unless the frequency depend decidedly on debility, produced by great hæmorrhage, &c., we ought to open the bowels freely, and give a diaphoretic," (that is, ten grains of Dover's powder). "We must carefully examine the belly, and if it be full, or painful on pressure, or, if the patient be inclined to vomit, we ought instantly to open a vein, and use purgatives. One copious bleeding on the very invasion of the disease, is more useful than ten afterwards; and the delay of two hours may be the loss of the patient, whose danger, even under the most active practice, is extreme. I know that many are unwilling to bleed women in the puerperal state; and the condition of the pulse may seem, to young practitioners, to forbid it. But, in cases of *peritonœal* inflammation, I most strongly urge the necessity of blood-letting, at a very early period: and the evacuation is to be repeated, or not, according to its effects, and the constitution of the patient. If she have borne it ill, and not been relieved, when it was used first, I apprehend that the case has not been simple *peritonœal* inflammation, but malignant puerperal fever.* If she bear it well, and the pulse become slower and fuller, and the pain abate, we are encouraged to repeat it,"—that is, should the symptoms require a repetition.

Dr. Lee says, (*Cyclopædia of Pract. Med. vol.* ii. *p.* 261), "However much the patient may complain of uterine pain, if the pulse be above 120 and feeble, and if the powers of the constitution have been much reduced by the previous treatment, blood should not be drawn a second time from the arm."

2. *In those cases of puerperal fever, where there exist signs of*

* That is, the case is not properly one of the first class here adverted to, but belongs to the second, which is of a more enfeebled and malignant character.

great depression of the vital powers, those of acute or high inflammation not being so clearly marked, especially if the malady be epidemical, and the patient of a weakly constitution, we must be more cautious in the use of the lancet, and still earlier in its use, if used at all. Here the immediate application of two or three dozen leeches to the lower part of the belly, with the use of the draught and enema recommended above, and warm poultices to the abdomen, are more suitable, and often more useful. The use of the calomel and opium also as advised above should be given, and is of great value.

In all cases of the disease, as soon as the purgative has operated, an opiate should be given, as eight or ten grains of Dover's powder. Opiates, after purgatives, abate irritation and pain, and restrain immoderate *diarrhœa* should that come on. *Diarrhœa* should soon be checked, unless it evidently gives relief, and the stools be very fœtid. In this case, a grain of calomel and two grains of Dover's powder may be given in a pill, twice or thrice in the twenty-four hours. If tenesmus be present, the anodyne clyster should be administered, after the use of the calomel pill.

In all cases, the bowels must be strictly attended to, using active saline purgatives and clysters where there is no diarrhœa; milder purges alternated with opiate enemas, and calomel and Dover's powder, where there is. For vomiting we recommend a grain of solid opium in a pill, and an opium plaster applied to the region of the stomach; or, sometimes an ounce, given every two or three hours, of a mixture composed of a drachm of sub-carbonate of potash and five ounces of spearmint water, will be of uncommon service in restraining vomiting.

In *epidemical* child-bed fever the use of the neutral salts has been found of signal advantage. I believe that this disease is then *one of the blood*, and the great indication of treatment is to improve its quality, as in other fevers. This view is based on the facts mentioned at page 83, which merit the most serious attention of all medical men.

Blisters are not much to be depended on in any case of this malady, and sometimes they excite an injurious irritation; flannel cloths, wet with oil of turpentine, applied over the belly, produce less irritation, and are sometimes very useful in relieving the pain.

When the inflammatory symptoms have been subdued, much exhaustion is apt to manifest itself, when the strength must be supported by light nourishment, ammonia,* and a small quantity of good sherry or port wine. After these, provided the patient is evidently convalescent, a little quinine is indicated, to rouse and sustain the powers of the system.

OF INFLAMMATION OF THE WOMB.

When we consider the long continued actions of the womb in pregnancy, and especially during labour, we directly recognize many probable sources of inflammation, but although all these causes of inflammation are applied, yet the effect is generally prevented by the topical discharge of the *lochia*, which, therefore, though a necessary consequence of the separation of the after-birth, answers the secondary purpose of preventing those evils, which otherwise would be very likely to arise. Another cause co-operating to the same end is the accession of the milk about the time when the lochial evacuations begin to diminish in quantity. This revulsion of the blood from the womb to the breasts, effectually defeats that determination to the womb which is so necessary to the support of inflammation there.

But notwithstanding the wise precautions of nature, inflammation of the womb sometimes takes place, from the causes recited above; to which may be added, exposure to cold, as by taking patients early out of bed after delivery, a practice deserving severe reprobation. This has a general tendency to throw the circulating fluids upon the internal parts. That direction of the blood to the womb, which obtains during pregnancy, naturally induces the flow of them to that viscus in preference to any other part. This, and the predisposition in consequence of labours, produces an inflammation in the substance of the womb, which, though sometimes it appears distinct and uncombined with any other disease, yet is often communicated to the *peritonœum* covering it, and to the neigh-

* A very good cordial draught in such cases, indeed, in most cases where a cordial is wanted, is made by mixing together three table-spoonsful of camphor mixture, thirty or forty drops of the aromatic spirit of ammonia, and half a tea-spoonful of syrup of orange peel. See also No. 5A.

bouring parts; as, for example, to the *ovaria* and *fallopian tubes*. Inflammation having once begun, the natural functions of the parts when in health become disturbed; thence a suppression of the *lochia* will be brought on, and so an increase of the disease.

Inflammation of the womb, when it exists simply, is tolerably well marked in its *symptoms*. It usually begins about the second or third day after delivery, and is first known to exist by a sensation of pain felt at the lower part of the abdomen, which gradually increases in violence, and is distinguishable from after-pains by its constancy. After-pains are intermittent like the pains of labour (see p. 222.) depending like them upon contractions of the uterus arising from irritation of the nerves of the part, which is therefore constant. The patient complains much if any pressure be applied to the womb. On examination externally the uterus will be found larger than its common size. It is also harder to the feeling, resembling almost the firmness of a stone.

Soon after the symptoms which have been mentioned, marks of constitutional affection sometimes appear in an increase of heat all over the body, a white and dry tongue, thirst, pain in the head, hardness, fulness and strength of pulse, (when the complaint occurs in strong habits), and in all cases frequency, from one hundred to one hundred and twenty beats in a minute.

The stomach soon becomes affected with sickness and vomiting. As this symptom is not constant, may it not depend upon the affection of one or both of the ovaria, in particular cases, as there exists a strong connection between those parts and the stomach? In most cases, the patient expresses a sense of great pain in the back, and shooting into the groins. The lochial discharge is usually much diminished, and sometimes altogether suppressed; and the secretion of milk is, for the most part, interrupted. The bowels are variously affected in this disease: at first they are often costive, but afterwards they frequently fall into purging, which in some cases proves useful, by diminishing the symptoms of inflammation. The urine has for the most part a high colored sediment, when we have an opportunity of seeing it unmixed with uterine discharges. It will sometimes be found, where the disease has communicated with the neck of the bladder, or when both the uterus and it have

suffered, that suppression of urine will take place, so that the catheter must be employed two or three times every day to draw it off.

If the inflammatory symptoms should not run very high, the abdomen does not swell; but if they should, then the inflammation attacks the *peritonœum*, and the symptoms become more severe.

In the progress of the disease, it frequently happens that slight shiverings take place at various times in the day, and the face of the patient becomes occasionally flushed. Under these circumstances the tongue puts on a fiery red or scarlet appearance. The pulse after this generally increases in frequency and weakness, symptoms of general irritation succeed, and the patient is often cut off in a short time. Now and then, however, a flow of fœtid lochia relieves the symptoms—the pulse becomes less frequent—the flushings appear more seldom—the tongue becomes paler—and the skin, which before had been hot and dry, now relaxes, and is cooler; a spontaneous diarrhœa comes on, and the patient recovers.

The probability of recovery is far greater when no shiverings have taken place, nor flushing of the face, nor any of those unfavorable symptoms described above; but where the uterus gradually becomes softer and less tender, where the lochial discharge returns in its usual quantity and quality, and the secretion of milk begins again, we may expect a recovery.

Treatment. The prevention of the disease altogether may be very much assisted by attention, before and during labour, to the management of the woman, according to the plan suggested at page 193 and 215. Of all the serious complaints which attack women in the puerperal state, I believe this to be the least fatal, and most within the possibility of relief from medical assistance, if it be early attended to. The attack being accompanied with pain, and often succeeded by constitutional symptoms, quickly gives alarm both to the patient and physician. The symptoms sufficiently pourtray the nature of the disease, and the mode of relief which should be attempted is distinct, and will very frequently be attended with success, if the form of the disease be simple. Every art which has a tendency in any manner to diminish the quantity of the circulating fluids, and weaken the action of the heart and

arteries, should be employed, in order to subdue the inflammation at the very onset.

Bleeding therefore from the arm, to the extent of sixteen or twenty ounces, (in strong constitutions, and in the country more especially,) should scarcely ever be omitted. Almost the whole of the success depends upon this being performed early and freely. The quantity must be regulated by the constitution of the woman, the violence of the symptoms, and the state of the pulse. In the repetition of the operation we must be governed by the same circumstances, and the effect of the former evacuation upon the disease: and it must be observed, that it will frequently be found necessary not only a second, but a third time. In less robust patients, it will be found expedient, if the symptoms having been diminished, are not entirely carried off by the first bleeding, to take away more blood by the topical application of six or more leeches, inclosed in a bason, to the belly: if it be desired to continue the discharge of the blood upon their falling off, it may be effected by the use of warmed flannels laid on the belly.

Fomentations of chamomile flowers, and the heads of poppies, (the cloths used for the purpose being sprinkled with camphorated spirit,) are also of service in alleviating the pain and disposing the patient to a gentle perspiratian. The greatest care should be taken in removing and applying the cloths that the sheets be not wetted, nor the patient exposed to cold: and when the operation of fomenting is finished, it will be found advantageous to make the skin quite dry, and then anoint the whole abdomen with some warm oily liniment, such as a mixture of an ounce of oil of olives with two drachms of camphor, and a drachm of oil of cloves.

Next to the diminution of the action of the vascular system it is of consequence to produce, if it be practicable, a gentle perspiration, which is eminently advantageous, as we have remarked above. Small doses of antimony and opium, with the addition of a little rhubarb, in a pill, which may be followed by a saline draught, as No. 17, every six hours, answer this purpose very well. The opium tends to quiet the pain, and the rhubarb secures a regular action of the intestines, without violently purging. About three grains of James's powder, with the same quantity of rhubarb, and one-eighth of a grain of

acetate of morphia, for a dose, will commonly succeed. The dose of the antimony should not be so great as to bring on vomiting. The opium may be increased both in quantity, and in the frequency of repetition, if necessary, so as to quiet the pain, which alone will aggravate the disease. Besides, unless relief from pain be procured, the patient will be entirely prevented from sleeping, and will fall into symptoms of irritation. Indeed, except where there is reason to suspect the existence of undigested, or indigestible substances in the stomach, the action of vomiting should always be avoided, inasmuch as it constantly adds to the pain by the agitation which it occasions, and the pressure made by the muscles on the inflamed *uterus*.

If during the course of the disease a spontaneons *diarrhœa* or looseness should come on, it should not be interfered with farther than by taking care that the strength of the woman be not reduced too much by it. If, however, the evacuations should be very frequent and copious, it will be proper occasionally to administer three or four table-spoonsful of the chalk mixture, or fifteen grains of the compound powder of chalk, with half a grain of ipecacuanha powder, so as to moderate without stopping the *diarrhœa*.

Blistering is not of so much service in this inflammation, as in many other inflammatory affections.

Of course the patient must, through the whole active period of this disease, be confined in her diet to the simplest articles, such as jellies, gruel, gum water, tea, barley-water, ripe fruits, &c.

If after the symptoms have continued for several days, shivering should attack the patient, it is almost certain that suppuration has supervened. Here little is in general to be done by medicine. We must support the patient by giving her food rather more nutritious than could be previously allowed, and patiently wait for the result. Sometimes patients recover from this condition in a surprising manner.

When suppuration is fairly established, and irritative fever comes on, I think sarsaparilla is among the very best medicines that can be taken.

OF MENTAL AFFECTION FOLLOWING CHILD-BIRTH.

Mental aberration following delivery is rarely fatal, and seldom continues long. In many cases it is closely connected with hereditary pre-disposition, in others with great physical derangement. Moral causes, however, as fright, excessive joy, &c. have often great influence in its production. From being possessed of a very irritable nervous system, some women are peculiarly liable to this malady, and in these cases, of course, the greater attention should be paid to avoid the exciting causes. In such a patient, I have known a strong dose of calomel given soon after delivery, induce an attack of deep hypochondriasis.

It is material to observe, that there are two forms of puerperal insanity, one in which there is fever, and a rapid pulse; the other in which there is scarcely any fever. In the former case, symptoms of sub-acute inflammation of the brain are present, and the probability of recovery may be small; in the latter, no symptoms of inflamed brain exist, and the patient commonly soon recovers. Refer to Dr. W. Hunter's remark on this subject, in my DOMESTIC MEDICINE, under the head of *Insanity*.

TREATMENT. The treatment mainly consists in soothing the patient by a union of firmness and kindness,—by acting gently on the bowels by means of purgatives, giving in the day the draught No. 17, together with a pill consisting of five or ten grains of camphor, and at night a tranquillizing bolus of five or ten grains of camphor, two of Dover's powder, and five or six of extract of henbane. Mustard poultices to the legs or thighs are often useful, especially when great confusion in the head is present. The warm bath at night, at ninety-seven or ninety-eight degrees, is a very useful remedy; it operates favorably on the skin and brain, soothes the patient, and often materially contributes to her comfort and restoration. She should remain in it from half to three-quarters of an hour.

The strait-waistcoat must be used without delay, if the patient cannot be calmed without it.

Blood-letting must be carefully avoided in the majority of

cases, and is indicated only where the pulse is full and very strong, and there are symptoms of inflammation of the brain.

After the disease has existed a few days, blisters between the shoulders are useful, and so is the tartar emetic ointment.

OF WARTS.

This subject ought to have been noticed at page 160.

For the crop of warts which now and then form about the external parts, or at the entrance of the internal parts, I think one of the best remedies is to expose them to the air, and keep them perfectly dry. By these means these parasite productions quickly lose their vitality and drop off, from being deprived of moisture. The patient must be ordered to bed, and the parts be kept separate by the use of adhesive plasters, whereby the whole crop of warts will be exposed. A little powdered chalk may be dusted upon the surface as often as necessary, and the parts may be kept clean by being washed night and morning with warm water during the process of cure.

Even when these warts originate from a suspicious source, the above mode of cure will be more certain, as well as less violent, than the use of mercury. If the preceding means fail, touch each wart with undiluted *liquor plumbi* once every day, until they drop off.

FORMULÆ OF PRESCRIPTIONS,

REFERRED TO IN THIS VOLUME.

Turpentine Balsam. No. 1.

Take of balsam of copaiba, Venice turpentine, and oil of amber, of each, five drachms. Mix them, and take from twenty to thirty drops three times a day, in any simple agreeable vehicle, as water or barley water.

Sedative Clyster or Enema. No. 2.

Take of linseed, bruised, an ounce; hot water, half a pint; let them digest for an hour, then strain the liquor, and add half a drachm of laudanum, and ten grains of camphor, which will form the clyster.

Turpentine Enema. No. 3.

Take of scraped camphor, one scruple; oil of turpentine, half an ounce or an ounce; olive oil, an ounce and a half; barley water, half a pint. Mix them for a clyster.

Opiate Enema. No. 4.

Mix together one drachm of laudanum, and six ounces of warm starch, which is to be injected directly.

Aperient Draught. No. 5.

Take of tartrate of potash, one drachm and a half; infusion of senna, an ounce; pimento water, half an ounce; tincture of jalap, one drachm. Mix them together for a mild aperient draught.

Cordial Draught. No. 5 a.

Take of camphor mixture, ten drachms; pure liquid ammonia, from seven to ten drops; tincture of gentian, one (full) tea-spoonful and a half; syrup of orange peel, half a tea-spoonful. Mix them.

This is one of the best, if not the very best, cordial draught which can be prescribed.

STRONG PURGATIVE DRAUGHT. No. 6.

Take of tartrate of potash, three drachms; infusion of senna, an ounce and a half; tincture of senna, and of jalap, of each, two drachms; manna, one drachm. Mix them for a draught.

PURGATIVE DRAUGHT. No. 6 A.

Take of powdered jalap, fifteen grains; Epsom salt, two drachms; tincture of ginger, fifteen drops; spearmint water, an ounce and a half. Mix them.

ANODYNE DRAUGHT. No. 7.

Take of camphor mixture, one ounce; nitrate of potash, four grains; compound spirit of sulphuric ether, one drachm; Battley's solution of opium, ten drops or more; syrup of poppies, one drachm and a half. Mix them together for a draught.

CARMINATIVE DRAUGHT. No. 8.

Take of subcarbonate of magnesia, one drachm; rhubarb in powder, six grains; oil of anniseed, three drops; liquor potassæ, twelve drops; water of ammonia, six drops; dill or pimento water, two ounces. Mix them together.

APERIENT AND DEOBSTRUENT ELECTUARY. No. 9.

Take of cream of tartar, six drachms; milk of sulphur, ten drachms; subcarbonate of soda, two drachms and a half; syrup of ginger, a sufficient quantity to form an electuary. The dose is one or two teaspoonsful every night at bed-time, or twice a day, according to its action on the bowels, which ought to be moderate.

COUGH EMULSION. No. 10.

Take of oil of sweet almonds, an ounce; the yolk of one egg; orange flower water, five ounces; mucilage of gum arabic, half an ounce; ipecacuanha wine, one drachm and a half; syrup of marsh-mallows, half an ounce. Mix them. The dose is a table-spoonful when the cough is troublesome.

ANODYNE AND SEDATIVE EMULSION. No. 11.

Dissolve one grain of acetate of morphia in twenty drops of oil of almonds, then add emulsion of sweet almonds, and camphor mixture, of each, two ounces and a half; mucilage of gum arabic, half an ounce; syrup of tolu, half an ounce. The dose is a table-spoonful.

ASTRINGENT INJECTION. No. 12.

Take of sulphate of zinc, one drachm and a half; rose water, four ounces; distilled water, sixteen ounces. Mix them.

ANOTHER ASTRINGENT INJECTION. No. 13.

Take of alum, three drachms; distilled water, fifteen ounces; mucilage of gum arabic, one ounce. Mix them.

ANOTHER. No. 14.

Boil half an ounce of bruised pomegranate bark in thirteen ounces of distilled water, for ten minutes; then strain it, and add two drachms of alum.

COMPOUND SOLUTION OF ALUM. No. 15.

Dissolve half an ounce of alum, and of sulphate of zinc, together, in two pints of hot water; then strain the solution through bibulous paper.

This is an excellent astringent injection in female complaints, in cases of relaxation of the passages, falling down of the womb, and *fluor albus*. At first, it should be diluted with an equal quantity of water.

MILD TONIC MIXTURE. No. 16.

Take of infusion of cascarilla, five ounces and a half; tincture of calumba, two drachms; carbonate of ammonia, one scruple; syrup of orange peel, three drachms. Mix them, and take three table-spoonsful, twice a day.

DIAPHORETIC TRANQUILLIZING DRAUGHT. No. 17.

Take of lemon juice, half an ounce; carbonate of ammonia, fifteen grains; syrup of orange peel, one drachm; spearmint water, one ounce and a half. Mix for a draught, to be taken at bed-time, or twice a day if requisite.

IODINE DROPS. No. 18.

Take of iodine, ten grains; hydriodate of potash, two scruples; distilled water, three ounces and a half. Mix them.

The dose of this concentrated solution of iodine is, in the beginning, six drops twice a day, in a little water, which may be increased three drops every week, till the dose, if requisite, is augmented to thirty drops, or even more.

MILD APERIENT PILLS. No. 19.

Take of compound rhubarb pill, one drachm; oil of cloves or carraway, a sufficient quantity to make the mass. Divide it into twelve pills, and take one or two as occasion may require.

QUININE PILLS. No. 20.

Take of sulphate of quinine, one scruple; powdered rhubarb, and powdered ipecacuanha, of each, ten grains; extract of chamomile flowers, a

sufficient quantity to form the mass, to be divided into twenty pills; one to be taken thrice a day.

Pills to stop Bleeding. No. 21.

Take of acetate of lead, ten grains; powdered opium, three grains. Mix them, and with a little bread crumb make into ten pills. One may be taken every hour, or every second or third hour, according to the urgency of the case.

Mild Alterative Pills. No. 22.

Take of blue pill, ten grains; tartarized antimony, one grain; extract of henbane, (or hemlock), prepared in vacuo, twenty or thirty grains. Mix them together, and divide into ten pills. One may be taken every night, or night and morning.

Steel Pills. No. 23.

Take of carbonate of iron, one drachm; powdered rhubarb, fifteen grains; socotorine aloes, one grain. Mix them together with extract of hop; and divide the mass into twenty pills. One is to be taken three times a day in the commencement, the dose being increased in the second week to two thrice a day, and in the fifth week to three thrice daily.

Antispasmodic Pills. No. 24.

Take of gum ammoniac, half a drachm; benzoin, powder of myrrh, of each, one scruple; assafœtida, fifteen grains; camphor, ten grains; tincture of orange peel, a sufficient quantity to form the mass. Divide it into thirty pills; two or three to be taken thrice a day.

Stronger Antispasmodic Pills. No. 25.

Take of gum ammoniac, and gum assafœtida, of each, two scruples; Castile soap, fifteen grains; powder of castor, twelve grains; carbonate of ammonia, two scruples; mucilage, a sufficient quantity to make the mass. Divide it into forty pills, and take two thrice a day. Those who have an insuperable objection to the assafœtida may have it left out, and order instead, the gum ammoniac and carbonate of ammonia to be increased, each one scruple.

Stomachic Pills. No. 26.

Take of inspissated ox-gall, purified extract of aloes, extract of gentian, Castile soap, of each, half a drachm. Beat them into a mass, and divide it into thirty pills, of which take two twice a day.

Iron and Iodine Pills. No. 27.

Take of hydriodate of iron, one scruple; the stigma of saffron, powdered, half a drachm; white sugar, one drachm and a half; mucilage of tragacanth, a sufficient quantity. Mix them well, and divide the mass into forty-eight pills, of which take one or two, twice or thrice a day.

Pills of Ammoniated Iron. No. 28.

Take of ammoniated iron, one drachm; powdered rhubarb, six grains; extract of gentian, a sufficient quantity to form the whole into a mass, to be divided into fifteen pills; one or two to be taken thrice a day.

Zinc Pills. No. 29.

Take of sulphate of zinc, one scruple; powdered rhubarb, eighteen grains; powdered ipecacuanha, ten or fifteen grains; extract of hop, a sufficient quantity to make the mass. Divide it into twenty pills, and take one thrice a day.

Stomachic Pills. No. 30.

Take of powdered rhubarb, twenty-four grains; powdered ipecacuanha, ten or twenty grains; Castile soap, two scruples; syrup, a sufficient quantity. Beat them well together, and divide the mass into twenty pills. One to be taken thrice a day.

Cordial Mixture. No. 31.

Take of camphor mixture, seven ounces; carbonate of ammonia, one scruple; compound tincture of cinnamon, three drachms; syrup of orange peel, four drachms. Mix them, and take three table-spoonsful, twice or thrice a day.

Purgative Enema. No. 32.

Mix together a pint or quart of thin gruel (warm), a tea-spoonful of common kitchen salt, and two ounces of castor oil.

Anodyne Pills. No. 33.

Take of extract of white poppies, extract of henbane, of each, half a drachm. Mix them together, and divide the mass into twelve pills. One or two to be taken, thrice a day.

Anodyne Pills. No. 34.

Take of extract of hop, extract of hemlock, of each, one scruple; true James's powder, twelve grains. Mix them, and divide the mass into twelve pills; one or two to be taken thrice a day.

Iodine Ointment. No. 29.

Take of mercurial ointment, half an ounce; hog's lard, an ounce and a half; hydriodate of potassa, two scruples; *liquor potassæ*, six drops. Mix them for an ointment, of which the size of a large nut may be rubbed into the part affected night and morning.

Tonic-Aperient Mixture. No. 35.

Take of the sulphate of magnesia, one, two, or three drachms; diluted sulphuric acid, one drachm; compound infusion of orange peel, and compound infusion of gentian, of each, four ounces. Mix them together, and take two table spoonsful thrice a day.

Alterative Tonic Mixture. No. 36.

Take of burdock, sowerdock, bog bean, rose noble, of each, one pound; boil them in eight quarts of water till reduced to four quarts, then strain it and let it cool. When cold add of saltpetre, one ounce; sulphur, one ounce; treacle, one pound. Half a pint to be taken fasting morning, noon, and night, by adults.

Saline Aperient. No. 37.

Take of Epsom salt, Glauber's salt, of each, two or three drachms; carbonate of soda, ten grains. Mix them, and take it in half a tumbler of water.

Saline Mixture. No. 38.

Take of subcarbonate of potash, two drachms; purified nitre, thirty grains; camphor mixture, six ounces; syrup of saffron, three drachms. Mix, and for a dose take two table-spoonsful, which should be mixed with an equal quantity of water, and a table-spoonful of lemon juice, or twenty-five grains of citric or tartaric acid, and drank immediately. This may be repeated every three or four hours.

This is a cooling mixture of much service in all inflammatory fevers, and acute inflammations.

APPENDIX.

OF THE TREATMENT OF EPILEPSY.

Epilepsy is one of the most afflictive of all human maladies, and having had an opportunity of witnessing and treating a great many cases of this distressing, and, in too many instances, incurable complaint, I am constrained to embrace the present opportunity of publishing a few remarks on the correct principles of its treatment, that is, the principles on which the majority of such cases should be treated.

Specific remedies have been much depended on here even by the most enlightened physicians, and at a former period of my life I was led to recommend them from a belief and expectation that the results would be highly satisfactory; but I have been disappointed, and this disappointment, together with the opportunity which has since been afforded me of judging for myself, and that fully, from multiplied observations, on all kinds of cases, have led me to lay down these principles in regard to the nature and management of Epileptic Fits, viz:—

First, That in the great majority of cases, these paroxysms are chiefly indications and results of deranged general health;

Secondly, That the complaint, consequently, ought to be treated on the principles applicable to the management of deranged health.

First. Every experienced professional man knows that, although in some points of view division is useful and necessary, yet that the usual multiplied divisions of diseases, and giving to each form a different name, is likely to be attended with evil consequences; because it is apt to lead the mind of the prescriber too much to the consideration of names, distinctions, and specific measures, when in reality he has little to do but to consider the *cause* of the state presented to him, and the remedies for that cause,—the rational and undoubted principles on which we should act in endeavouring favorably to influence that cause. Thus, in the case of epilepsy, nothing is more common than for the mind to be directed, almost exclusively, to the more visible symptoms, and to the use of some particular medicine which has been much praised for its curative powers in that disease.

But if it can be shewn, that these paroxysms are for the most part only indications and results of a deranged condition of the general health, then it clearly follows, that this is not the proper channel in which our considerations should run, and cannot lead to so successful a practice.

That this is the real nature of the majority of cases is proved by the state of the secretions, as shown by the appearance of the tongue, and the condition of the skin, the bowels, and the strength, and by the other usual marks of physical derangement. The strength and appetite are certainly sometimes unimpaired, the general aspect of the patient good, the nights free from restlessness, and the days from nervousness; but undoubtedly these are rare cases, especially when there is such a combination of fair appearances. In some of these fairer examples, the strength, appetite and spirits of the individual may be good, but to a discerning eye* the look is far from healthy, the nights are not quiet, and the tongue is a sure index of stomachic and intestinal irritation. I have now before me a letter recently received from a gentleman who has suffered most severely from epilepsy, and who, from the history previously and subsequently given me, has evidently not been treated on the principles now laid down, and who has not yet derived any permanant advantage from medical treatment,

* See the remarks in the note at page 91.

although his is, or at least has been, a promising case. His words are expressive of my opinion, in reference to the majority of cases, and I shall therefore introduce an extract from his communications. He says—"I have long since come to the same conclusion that you have done, respecting my complaint, viz. that much depends upon the general state of my health, which, I am sorry to inform you, has been for some time past in a declining state. My bowels are generally more or less confined, except on the morning of an attack, when they are often violently affected, once or twice in the early part of the morning. My tongue is also much covered with white fur every morning; my pulse is languid, fluctuating between sixty and seventy; sleep uncertain, sometimes very restless, but on the morning previous to an attack, I am invariably very drowsy, and heavy with sleep. I will only add, that *many years since I got very stout and fat, and remained so for about two years, during which time I had no return of my complaint, but after that period I began to fall away, and became much weaker, when my complaint returned.*"

One or two cases prove nothing, but this case may safely be quoted as one of the majority, (and another, of a very striking description, may be seen in the seventh edition (and all subsequent editions) of my DOMESTIC MEDICINE,) proving the principle now laid down, and the reader cannot fail to notice particularly the concluding part of the extract, which says, that, even in this very severe example, when his general health was greatly improved, his fits altogether ceased;—the health again becoming bad, his fits returned.

An objection to this rule may possibly be started by many in these words—"There are a great number of persons suffering from severe derangement of the general health, who nevertheless know nothing about epilepsy, then how can this malady properly be said to arise from such derangement?" The answer to this may be given in this form—there are many persons who suffer from deranged general health who never had gout or jaundice, yet the principle stands firm and incontrovertible, that both gout and jaundice mainly proceed from this derangement in the system. Why one patient in this deranged state should have epilepsy, another gout or jaundice, and another no specific disorder, is often hidden from our view; in

some cases, indeed, the determining cause may be seen in hereditary predisposition, in other cases, in accidental predisposition, but in many instances we cannot discover the evidences of such predisposition.

SECONDLY. The principal source of epilepsy being now pointed out, it follows as a necessary consequence, that the disease should for the most part be treated, on the general and particular principles applicable to the management of severe derangement of the general health.

There can be no just reason for wholly discarding particular or specific medicines in this disorder, but they ought not to attract the first or chief attention. It is not my design now to enter fully into this subject, but simply to remark, that we have more especially to consider in the treatment—the *general* plan on which the patient should be put, which is pretty much the same in all cases; and the plan applicable to the *individual* cases, particularly in regard to medicine, &c. which must vary much, according to the ever varying circumstances of secretion, strength, appetite, pulse, and the other clear indications of peculiarity.

As a general plan, that pointed out in my book entitled BEST METHODS OF IMPROVING HEALTH, especially under the head of TRAINING, can scarcely, I suppose, be improved upon, and the perusal of those sheets will well repay every epileptic sufferer.

Among the many particular remedies, I may mention that my confidence is chiefly engaged by sarsaparilla, in the form of powder or extract, with a mercurial alterative pill every night—by a simple stomachic, as No. 30, in the day, with an alterative at night—or by such an alterative as No. 22, twice a day, with a stomachic or tonic before dinner—a combination of sarsaparilla and dandelion—the use of the tartar emetic ointment—misletoe, with alteratives, &c.—*liquor potassæ*, or subnitrate of bismuth,—*Dyctamnus albus*,—Miss Pike's powders,—and by travelling.

Of course very much will depend on the order, dose, and combination in which these various remedies are employed, and on the interchange of their administration. In all the severer maladies of the human frame, little is done in merely mentioning the remedies which are most useful, for the result

ordinarily depends on *the manner* in which they are used. Many striking proofs of this might easily be given, both from my own practice and that of others.

Blood-letting is a common resource here with the routine practitioner, but the enlightened man will always strenuously oppose its adoption, unless the patient is robust, and the circumstances peculiar.

One of the most successful remedies in the treating of this disease when it is idiopathic, and there are no symptoms of existing cerebral congestion, is the extract of *Belladonna.* Give it in the form of a pill, beginning with about one or two grains *per diem* at first, and gradually raising the dose to four or five grains, provided no affection of the sight or any other intoxicating symptom is induced. In some cases, we may conjoin with advantage, the use of a decoction or infusion of valerian. But neither this latter remedy, nor yet the oxyde of zinc, nor the nitrate of silver—although all of them have been found occasionally useful—can be trusted to alone. In general, the more frequent the paroxysms are, the more hopeful we may be of making an impression on the disease: it is when two or more months intervene between each attack, that this malady is usually most obstinate and intractable. In such cases, the belladonna should be administered for a week or two before the expected invasion. When this is preceded by a distinct *aura Epileptica,* a strong dose of ammonia will sometimes serve to ward off the attack: the patient therefore will do well to carry a small phial of the volatile alkali in his pocket. In some cases, the paroxysms of Epilepsy may be arrested for several months by the use of the belladonna; but, nevertheless, they ultimately return almost as frequently as ever, in spite of the prolonged continuance of the remedy. It is under such circumstances as these that the decoction of valerian root, or of orange leaves, should be exhibited at the same time.

One of my patients has derived the most substantial benefit even from a change in diet, and the proper regulation of the bowels. He is a young and rather strong man, and therefore a spare diet was previously enjoined, his pulse was consequently reduced too low, and was commonly under fifty-six. During this time his fits were often violent, and his manner sometimes furious. After prescribing alteratives, improving

his diet, and allowing him three glasses of good wine a day, the disease gave way materially, and now the fits are ordinarily of the mildest character.

Even persons who live in the country, and lead an active life, are found to suffer from epilepsy, and three individuals living in a country place near me have been cured not long since, by my prescribing on the principles herein advocated. Each presented symptoms of great derangement in the general health, and although they were not cured by exactly the same remedies, yet success followed the use of the means which attacked the *cause* of their malady.

At this time I have a severe case of epilepsy under treatment, which tends very strikingly to corroborate the statements now advanced in respect to the ordinary nature and treatment of the disorder: it is that of a young woman, of twenty years of age, who bears all the marks of deranged general health, but who, although she has suffered from the complaint for years, has never been treated accordingly, and has consequently until lately failed to gain any advantage whatever from the prescriptions she has followed. She has been subject to eruptions on the skin, oppression at the stomach after taking food, very disturbed sleep, frequent giddiness, furred tongue, constipated bowels, excessive nervous irritability, sometimes bordering on derangement, &c. Yet no one has previously seriously thought of correcting the disordered condition of which these are so many unequivocal signs! And this is a too common mode of proceeding. The means prescribed for her during the last two months, on the principles just laid down, have been attended with as marked an effect as could be even reasonably desired, and I hope to see her thereby permanently and greatly benefited.

We ought to enquire, and may profitably consider how it is that no one really endeavoured to correct the very disordered condition of this patient? for we shall at once recognise in the fact, a proof of the common blind attachment to specific remedies, and how frequently such persons suffer from a neglect of the use of means which are, nevertheless, clearly indicated, and loudly called for.

THE COLD-WATER SYSTEM.

ON THE PROPER USE OF COLD WATER.

The system of treating diseases by cold water is now attracting considerable attention in this kingdom, and regarding it as a valuable auxiliary to medical practice, I have pleasure in describing its principal baths and manipulations, hoping that some of my afflicted readers may gather from this account of it such hints as will be very serviceable in augmenting their strength and relieving their disorders.

I have devoted much time to the study of Hydropathy, and have seen a great many cases treated by this new method, besides those treated at Epsom under my sole care; and while I would recommend it as sometimes highly beneficial, it is at the same time my duty to warn the public against its excess, and the unprincipled adventurers who on all hands are now vaunting it to the skies. There is so much of error, misrepresentation, and exaggeration abroad, on the subject of the cold water mode of treating diseases, with so much objectionable and dangerous practice, and many invalids are, therefore, so evidently in danger of being the dupes of ignorant and interested men, and of being cruelly imposed upon, that I feel it a duty to endeavour to throw a little light on this subject, and to place my observations in such a form as will render them of easy circulation. Nothing, connected with the art of healing, has ever appeared in this kingdom in which such audacious quackery is obtruded on the public, as in this Hydropathic practice.

The principal remedial means employed in the "*water-cure*" are, the *Sudorific Process;* the *Cold Bath;* the *Shallow Bath;* the *Wet-Sheet;* the *Sitz-Bath;* the *Wet-Bandage;* the *Douche;* and the *Foot-Bath.*

Sweating is thus effected:—The patient, being undressed, is enveloped in a large coarse blanket,—the legs extended, and the arms kept close to the body,—the blanket is then wound round it, as tight as possible, and turned well under at the feet: over this is placed, and well tucked in, another blanket or two, and then a small feather bed; finally, a counterpane, and a sheet, are spread over all. Perspiration appearing, the windows are opened, and the patient is allowed, if he wishes it,

a wine-glassful of cold water, every half hour. If head-ache be induced, a damp cloth is applied. The duration of the sweating depends on the nature of the disease, and the constitution of the individual.

The Cold Bath.—It is generally taken after sweating, by those patients who have sufficient vigour for re-action. Strange as it may appear to many, I consider the determination towards the skin induced by the perspiring blankets to be a great advantage, prior to the use of the cold-bath; because the internal organs are thereby relieved, and the shock has quite a different effect on them from what it would have if they were not first thus soothed and invigorated.

The Shallow Bath.—This is a bath long enough for a man to sit or lie down in, containing six or eight inches of water, or more. Either tepid or cold water is used, according to the circumstances of the patient. It is a bath of great service in numerous cases. The patient is rubbed well, all over, while in the bath. With cold water it is very serviceable in general debility; and with tepid water in local inflammations and fever.

Patients sit in this bath, and have cold water poured over them, and are also rubbed well with wet towels. In my opinion, this kind of bath is not so frequently employed in the German mode of practice as it ought to be. It is a most valuable remedy, and there are few cases of debility in which it is not indicated, and in which it will fail to prove invigorating, and either to relieve or cure chronic inflammatory action.

The Sitz-Bath.—This is a sitting bath, in fact, a hip bath. We use it in this country made of tin; but at Gräfenberg the sitz-bath is a small common flat tub, of about eighteen inches in diameter, containing about two gallons of water. The patient sits in this, with the feet resting on the ground, from eight to forty minutes, or more, according as the case indicates; generally every day, and sometimes twice a day:—in severe cases, perhaps, thrice a day. It is, unquestionably, a remedy of great power in all disorders of the abdomen and head. It draws the bad humours from the head, strengthens the whole of the digestive organs, and improves their secretions. Only a small quantity of water is used, with the view of securing a reaction; as thus the water soon becomes warm.

It is strange that medical men have so much neglected this simple and yet powerful remedy, especially in diseases of the abdomen: the tepid, or cold water being, by these means, brought into immediate contact with the parts affected, and kept applied to them for any period we please, the effects can be regulated at pleasure, and are very satisfactory and striking. In weak bowels, congestion in the liver, *Dysmenorrhœa*, *Chlo-*

rosis, and other female complaints, it is of the first importance. I have found it invaluable in some female complaints, and in diseases of the eyes.

The action of the sitz-bath, (and also of the foot-bath,) is derivative, if employed for a short time without changing the water;—that is, it draws the blood from the upper regions of the body, by the consecutive re-action of the system, which accelerates the circulation in the smaller vessels of the parts immersed. Thus heat in the head is lessened, congestions there are removed, and the pulse is softened and moderated.

The Foot-Bath.—The tub used for this bath is oblong and shallow. It is usually ordered to contain only about two inches of water,—sometimes only an inch; and to be used for six or ten minutes at each sitting; either the servant, or the patient, rubbing the feet the whole of the time. The patient must walk out, for half an hour or hour, immediately and briskly after it.

This bath is, likewise, employed as a derivative from the superior parts of the body, and I have found it of striking benefit in affections of the head. Its powerful effects in deriving from the head and in warming cold feet will be credited by few until they have either felt them in their own persons, or witnessed them in others. In the whole of the Hydropathic practice there is no means more strikingly powerful than the foot-bath in certain instances. I can recommend it with confidence in determination of blood to the head—in head-ache—in affections of the eyes, and in habitual coldness of the feet.

The Douche.—The douche is a fall of water from a considerable height, usually from 15 to 18 feet, of about the thickness of a man's wrist. The patient goes into the douche-room undressed, and then exposes one member and part of the body after another to this tremendous fall of water,—taking care of the chest and head. It is used for one, two, or more minutes. All patients who have tried it, soon become quite delighted with the sensations it produces; which are very invigorating and delightful.

It is prescribed with a view to invigorate weak parts; to strengthen the whole muscular structure; and, when a crisis is thought necessary, to stir up all the humours, and bring the bad ones to the surface.

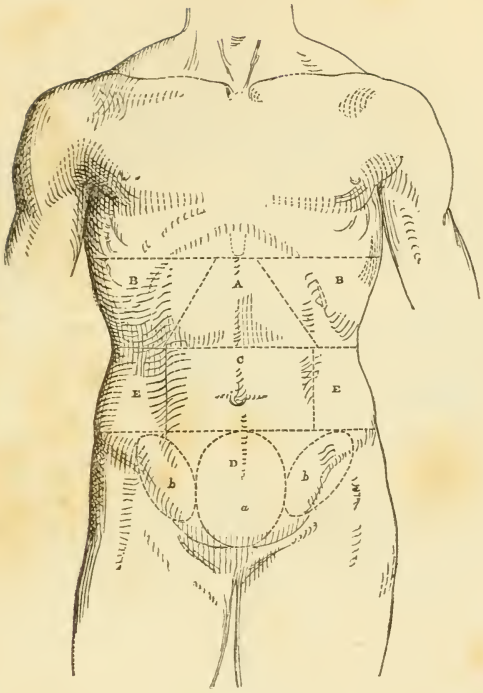
The Wet-Sheet.—This is one of the principal means employed in the *hydriatic* treatment. Very few patients submit themselves to it without being enveloped, at least occasionally, either in a whole, or half-wet sheet; but as it cannot easily be employed in domestic practice, I shall say little about it here. It is, however, very useful in softening the skin and improving its secretions.

The Umschlags, or Wet Bandages.—The wet bandages are very useful applications in most local complaints, and in constipation. They are made of coarse linen, of any convenient width, and are uniformly employed in gout, rheumatism, ulcerations, swellings, sprains, and weakness of the limbs; being worn for several hours in the day, and sometimes all night. The immediate effect of a wet bandage is to reduce inflammation, allay irritation, and impart tone to the nerves and vessels of the part to which it is applied. If active inflammation be present, the linen is dipped in the coldest water, wrung out, placed over the part inflamed, and renewed as often as it becomes warm. But in ordinary cases, and where no acute inflammatory action is to be encountered, the bandage, after being dipped in cold water, wrung out, and wound round the part, is to be covered with a dry bandage, which is to be drawn closely and tightly over that which is wet, so as to promote perspiration from the surface it covers.

There is no part to which a bandage is so frequently applied as round the body, over the stomach and bowels:—for this purpose, it should be at least three or four yards long, and 12 or 13 inches broad; of which about one yard is to be dipped into cold water, wrung out, and then laid over the stomach and bowels; the remaining two yards being wound tightly over it, and tied on one side.

The German Hydropathic establishments cannot be recommended, the practice there being too much of a routine—of a hit or miss character—and their diet intolerably bad. I would warn the public also against the German practitioners in this country, who are mostly ignorant, unprofessional adventurers, and wholly unworthy of confidence.

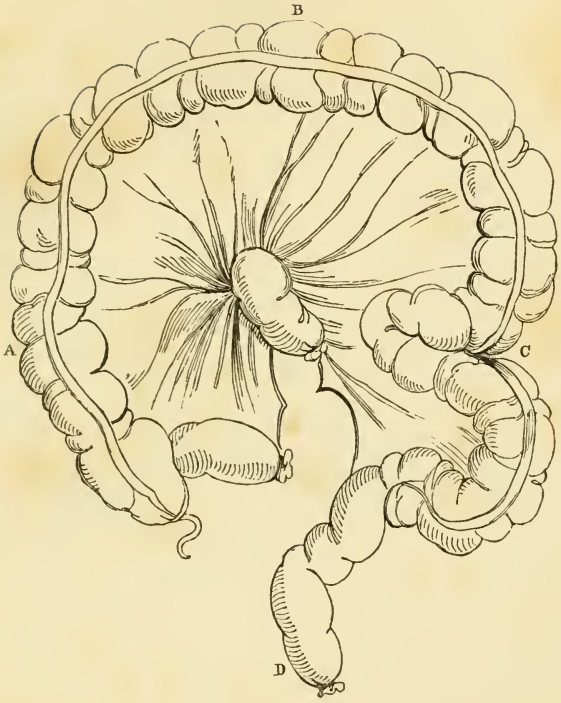
"The principal animal food at Gräfenberg is boiled beef (done to rags) and the veal of calves not more than a day or two old. Hares, coarse, dry and tough, being *first boiled* and then baked. Baked pork, baked goose, and baked duck, with baked sausages, help to vary the repast. Add to this, old mutton, *fœtal* calf, and cow beef, *stewed in vinegar*, succeeded by rancid ham served with mashed *grey* peas."—*Dr. Johnson on Hydropathy.*



THE DIFFERENT REGIONS OF THE BODY.

The Epigastric Region—A—is the upper part of the abdomen under the point of the breast-bone. Upon each side of this, lie the Right and Left Hypochondriac Regions,—B, B—These regions are covered by the terminations or cartilages of the ribs; the liver being seated in the *right hypochondrium*, the stomach in the *left;* while the pancreas, duodenum and part of the colon occupy the *epigastric region*. The part around the navel is called the Umbilical Region—C—, in which lie principally the small intestines; and on each side of this, we have the Iliac Regions—E, E—which contain important parts of the colon. Behind these regions are the Lumbar Regions or Loins, where the kidneys are seated, and part of the colon. The Hypogastric Region—D—is the lowest part of the abdomen: it contains the urinary bladder, uterus and inguinal glands. It is divided into the *pubic region* in the middle—a—, and the *inguinal regions* (or groins) on each side—b, b—.

No. 2.



A VIEW OF THE COURSE OF THE LARGE INTESTINES.

A—is the RIGHT DIVISION of the COLON, which rises below, (about the point at which it is here represented to commence,) from the termination of the small intestines; and ascends on the right side, until it takes a course across the abdomen, forming an arch before or immediately under the stomach, called the TRANSVERSE ARCH OF THE COLON B—. The left or descending colon is short, soon terminating in the SIGMOID FLEXURE—C—; passing forwards, it terminates in the RECTUM—D—.

The *cæcum*, or head of the colon, on the right side, that is, in the right *iliac region*, and the *sigmoid flexure* on the left side, that is, in the left *iliac region*, are parts in which fœcal accumulations are very

apt to take place. These are the seats of many obstinate and serious obstructions,—of many aggravated dyspeptic affections; indeed, they are parts so frequently deranged, and of so much importance, as to demand our close attention constantly in extensive medical practice. This I have pointed out under COSTIVENESS, in the DOMESTIC MEDICINE. I have seen cases of dyspepsia and deranged general health, associated with great suffering, dependent entirely upon a morbid state of these parts, but which had wholly escaped medical detection for years.

From the course of the large intestines, as here exhibited, the constipated subject will perceive, that the proper mode of applying friction on the bowels is not from above downwards, but in the course of the colon—from below upwards, round over the superior part of the abdomen, and then downwards.

No. 3.

FIGURES REPRESENTING THE FORM AND RELATIVE SITUATION OF THE STOMACH, DUODENUM, PANCREAS, AND GALL BLADDER.

A,—the STOMACH: B, B,—the DUODENUM, or first small intestine: C,—the GALL BLADDER: D,—the PANCREAS and its duct, which opens into the duodenum: E,—the DUCTUS HEPATICUS, which carries the bile from the liver: F,—the DUCTUS CYSTICUS, which conveys the bile from the gall Bladder through G,—the DUCTUS COMMUNIS CHOLEDOCHUS, into the duodenum, where it mixes with the food, (as does also the pancreatic juice,) as it passes downwards from the stomach.

In order to the more ready and perfect understanding of the following observations on the DISEASES OF THE HEART, this note is annexed on the *Anatomy of the Organ.*

The heart contains four cavities, two ventricles, and two auricles. A ventricle and an auricle are placed on the right, and called the right ventricle and auricle, and the same disposition is observed on the left, which is called the left ventricle and auricle. On each side, the auricle communicates with the corresponding ventricle; but the right cavities never communicate with the left in a natural state. The office of the right auricle is to receive the dark-coloured blood which is returned to the heart by the veins, after it has gone the round of the general circulation, and exhausted its scarlet colour, and nutrient properties in the nourishment of the various parts to which the arteries have carried it: From the right auricle the blood passes through the right auriculo-ventricular opening into the right ventricle, from whence it is driven through the lungs. The left auricle receives the blood from the lungs, after it has there been purified and become scarlet or arterial blood (oxygenated), whence it passes through the left auriculo-ventricular opening into the left ventricle, which drives it through the whole body—it passes from the left ventricle through the aorta to all parts of the frame. So that it will be perceived there are two circulations, the greater circulation, or that of the body; and the lesser circulation, or that of the lungs.

The left ventricle has thicker fleshy walls, its cavity is smaller, its power greater far than that of the right side. This ventricle is thus small that it may be easily filled and stimulated, and thus strong that it may propel all the blood of the body.

The valves of the heart are, *the Tricuspid valve* placed on the *Right Auriculo-Ventricular opening*; the *Mitral valve* placed on the *Left Auriculo-Ventricular opening; the Semilunar valves* of the *Aorta*, and the *Semilunar valves* of the *Pulmonary artery.*

In the action of the heart, the two ventricles contract at the same time, and the use of the *Tricuspid* and *Mitral valves* is to prevent the regurgitation of the blood into the two auricles; and that of the *Semilunar valves* to prevent regurgitation from the *Aorta* or *Pulmonary artery* into the ventricles.

OF THE

DISEASES OF THE HEART.

As this subject has been omitted in the author's DOMESTIC MEDICINE, he avails himself of the present opportunity to supply the deficiency.

The Diseases of the Heart have attracted great attention from professional men throughout Europe and America, during the last twenty years, which has been owing to the acknowledged increase in the frequency and severity of these complaints, and to their having been previously much neglected and misunderstood.

Diseases of the heart are undoubtedly much more frequent than is generally imagined, and we recognise sufficient reason for this, first, in the incessant action of the organ,—it has no intermission nor remission of action from the first moment of existence to the last; and secondly, from its being immediately and continually influenced by the passions, as well the noblest as the baser passions, in their infinite shades, and all the suddenness of their occasional operation. Hence some physicians of great judgment have considered these diseases to be the most frequent of all organic maladies, except those of the lungs; and no professional man of observation can possibly practice long without being struck with the great number of cases that present themselves.

The severest and most common diseases of the heart are,—*Hypertrophy of the heart*, or enlargement and thickening of its parieties;—*Dilatation of its ventricles*;—the combination of these two conditions; *Ossification or other affections of the valves*; and *Aneurism of the Aorta*.

The *general symptoms* are similar in every variety of structural disease of the heart. More or less habitual difficulty of breathing very commonly attends: the acts of inspiration are either very quick, and effected more by the action of the ribs than by the diaphragm, attended with wheezing; or the patient breathes as if he had been walking rapidly, and appears to make unusual efforts in filling the lungs; or the respiration is calm, and without any particular effort, but the air does not appear to enter into the lower portion of the lungs. Mental agitation, or corporeal exertions, particularly walking, or ascending acclivities and stairs, never fail to bring on more or less violent paroxysms of dyspnœa; and in the latter stages of the disease, the most trifling excitements of this kind give rise to extremely distressing spells of suffocative breathing, attended with great weight and constriction in the breast, inexpressible

anxiety, a turgid and often livid hue of the face, &c. During the early period of the disease, or in cases of a less serious character, the patient is able to lie down, (though rarely with any degree of ease on the right side,) but the sleep is much disturbed by alarming dreams, frequent startings, and spells of palpitation—obliging the patient suddenly to sit up in bed. In violent or inveterate cases, however, all these symptoms are aggravated.

The other most frequent symptoms of cardiac diseases are, irregular action of the heart; attacks of partial fainting; swelling of the feet and legs; dyspepsia; a peculiarly irritable temper; and an irregular intermittent pulse, which often has a peculiar jarring beat, or is sharp, exceedingly firm, and incompressible.

All diseases which give rise to severe and long continued difficulty of breathing produce hypertrophy or dilatation of the heart, through the constant efforts the organ is called on to perform, in order to propel the blood into the lungs against the resistance opposed to it by the cause of the difficulty of breathing. It is in this manner that consumption, chronic peripneumony, asthma, and other complaints act in producing disease of the heart; and that those kinds of exercise which require great exertion, and thereby impede respiration, prove the remote causes of these cardiac diseases. On the other hand, it is certain that diseases of the heart, on the same principle of mutual influence, give rise to several affections of the lungs; being thus among the most frequent causes of hœmoptysis, pulmonary apoplexy, &c.* It is thus that *a neglected cold* becomes frequently the original cause of the most severe diseases of the heart.

We must not forget that there are congenital causes of these diseases, the chief of which are, a disproportion between the size of the heart and the diameter of the aorta, and a disproportionate thickness of one or both sides of the heart. There is reason to believe, that in some persons the parieties of one or both sides of the heart are either too thick or too thin from birth. In such instances, there can be no doubt that the usual exciting causes, moral and physical, will be more apt to produce formal diseases of the heart than in persons in whom this disproportion does not exist.

Of all the *causes* of these affections, I believe violent mental emotions are among the most frequent and powerful. Very many instances have occurred in which sudden terror, anger, or joy, and deep grief, have produced incurable disease of the

* "When, however, diseases of the heart are found to co-exist with chronic pleurisy, phthisis, emphysema, and, in general, with chronic disease of the lungs, it will usually be found, on close examination, that the latter are the primary diseases."—*Laennec on Diseases of the Chest, third edit. p.* 594.

heart. Corvisart, one of the most able writers on these diseases, asserts that they were much more frequent in France after the Revolution, in consequence of the tremendous, terrific agitation produced at that period of unparalleled atrocity and overwhelming horror and distress—an assertion the correctness of which none can doubt.

Disease of the heart may arise from any violent effort, as in immoderate running, wrestling, riding, carrying heavy burthens, the use of wind-instruments, singing, coughing, violent dancing;—from external blows;—from a scrophulous habit, repelled cutaneous disorders, syphilis, gout,—and more especially from rheumatism. It is now universally admitted in this country that rheumatism often produces disease of the heart, of which numerous examples are given in the writings of Sir D. Dundas, Dr. Cox, and Dr. Forbes. Dr. Cox states, *(Observations on Acute Rheumatism, and its Metastasis to the Heart,)* that his observations have lead him to believe, that "the majority of cases of organic diseases of the heart *in young people*, are connected with rheumatism:"—other enlightened physicians also say that long and attentive observation has convinced them that a very considerable proportion of those active enlargements or hypertrophiæ of the heart, which are now so frequently met with in practice, are dependant on rheumatism.

OF HYPERTROPHY OF THE HEART.

By hypertrophy is meant an increase of the muscular substance of the heart,—its parieties are thickened, and the force of its action is increased, without a dilatation of its cavities; indeed, these are sometimes diminished in size. The cavity of the ventricle appears frequently to have lost in capacity what its walls have gained in thickness. This thickening of the heart is attended by a greater firmness of its structure, excepting when joined with a distinct affection of the organ, called *a softening of the heart.* Hypertrophy may exist in one or both ventricles, with or without a similar affection of the auricles.

The *symptoms* of hypertrophy of the *left* ventricle, are—a strong and full pulse; violent beating of the heart against the chest; and a violet or red tint of the face. The patient almost constantly *feels* the action of the heart; though very violent and tumultuous palpitations are less apt to occur in this than in some other affections of the heart. These symptoms, though frequently present, are not invariably so; for, in some very severe cases, the pulse is small and weak. The contraction of the left ventricle, examined by the stethoscope, "between the cartilages of the fifth and sixth ribs, gives a very strong im-

pulse, sufficient to elevate the observer's head, and is accompanied by a duller sound than natural; it is more prolonged in proportion as the thickening is more considerable. The sound of the pulsation of the heart is confined to a small extent, being, in general, scarcely perceptible under the left clavicle, or at the top of the sternum: sometimes it is confined to the point between the cartilages of the fifth and seventh ribs. The impulse of the heart is rarely perceived beyond the same limits, except during palpitation."*—*Laennec on Diseases of the Chest, third edit. p.* 600.

Hypertrophy of the left ventricle is much more frequent than of the right, which is readily accounted for by the particular organization of that ventricle, its peculiar connection with the vascular system in general, and with that of the heart in particular. Each of the ventricles, in a natural state, possesses a power proportionate to the degree of impulsion which it must give to the blood, and to the resistance which it has to sustain. The left, which has to propel this fluid through the whole extent of the general arterial system, that is, through the whole body, excepting the lungs, is provided by nature with thicker and more muscular walls, and consequently with greater strength. The right ventricle, on the contrary, having only to forward the blood through the limited extent of the lungs, requires no more than the moderate degree of strength which it has received. This difference in the organization of the parieties of the two cavities is the cause that each, by reason of its own peculiar structure, has a disposition to become the seat of one or other of the different kinds of hypertrophy, or aneurism which we have specified.

The *symptoms* of hypertrophy of the *right* ventricle are similar to those of the left, only here we have more dyspnœa, and the complexion is of a deeper hue, and with a very few exceptions the external jugular veins are turgid, and have a manifest pulsating action communicated to them by the regurgitation of the blood.† The heart is felt beating with most force at the *bottom of the sternum* or breast bone, instead of on the left side of the chest, in the space between the cartilages of the fifth and sixth ribs. This latter symptom is considered a very valuable diagnostic sign.

If hypertrophy exists in both ventricles, there will be a combination of the symptoms just mentioned.

It is worthy of particular notice, that in the organs which

* This affection of the left ventricle is peculiarly apt to produce apoplexy, from causes sufficiently obvious to every enlightened professional man.

† "It is worthy of notice, that this pulsation of the jugulars is commonly confined to their inferior portion, where the vein and carotid artery are much more asunder than in the middle of the throat."—*Laennec on Diseases of the Chest, p.* 602.

are dependant upon the two circulations, (that is, through the lungs, and through the whole of the remaining part of the body,) those phenomena are to be observed, which are best calculuted to point out the particular cavities of the heart which are affected.

The lesser circulation, the lungs themselves, are more particularly affected in aneurism of the *right ventricle;* the breathlessness is in general greater, and the fainting also more frequent. The complexion is apt to be violet, and almost black at times, in consequence of the prolonged stay of the blood in the *vena cava superior*, the jugular and facial veins, which cannot easily disgorge themselves into the right auricle.

On the contrary, in aneurisms of the *left* cavities, the disease appears better marked in those phenomena, which are under the influence of the greater circulation. In these affections, the face is suffused, of a very lively and deep red, particularly the cheeks, while in similar disorders of the right cavities, it appears as though ecchymosed.

When the disease is much advanced, a general bloatedness comes on, whatever may be the species of hypertrophy or dilatation; but it is slower where the left cavities are affected; when, on the other hand, the right cavities are dilated, the pulmonary fulness which always exists, does not allow the blood in the lungs to be properly and fully submitted to the repairing influence of respiration. The blood then quits the lungs, and enters into the greater circulation, nearly in the same state as when it quitted it, that is to say, without having lost all which it should lose, or acquired by oxygenation all which it should acquire. Great must be the evils arising from such a subversion of the results of the circulation; whence Corvisart, (*Treatise on the Diseases of the Heart, p.* 136,) is disposed to think, and with good reason, that this single cause may bring on more speedily the serous diathesis, (leading to dropsy,) in cases of dilatation of the *right* cavities, than in that of the *left* cavities of the heart, and that death, independently of this serous diathesis, may also more speedily ensue, partly in consequence of the blood having lost much of its stimulating quality.

OF DILATATION OF THE VENTRICLES.

This is what some authors call *passive aneurism of the heart*—the ventricle being preternaturally dilated, their walls much diminished in thickness, and the muscular substance, in many instances, so soft that it may be easily broken down by mere pressure between the fingers. The right ventricle, for example, has been found so completely attenuated as to appear

merely composed of a little fat and its investing membrane. Although sometimes confined to one ventricle, yet dilatation usually affects both at the same time. This condition of the heart is very commonly accompanied by other organic affections of this organ,—particularly ossification of the valves, and congenital narrowness of the openings into the aorta or pulmonary artery. These last states are often the cause of morbid dilatation of the ventricles.*

A natural debility, a deficient excitability, a serous diathesis, and blood deficient in its stimulating properties, very much favor the action of causes of passive dilatation, if they do not sometimes give rise to it. Therefore dilatation is most common in women. The pulse is usually soft and weak, and the palpitations of the heart feeble and indistinct:—the hand applied to the region of the heart feels as if a soft body elevated the ribs, and did not strike these with a sharp and distinct stroke. When the *left* ventricle alone is thus affected, the contractions of the heart will be heard very distinctly with a clear and sonorous sound between the cartilages of the fifth and seventh ribs. When the *right* ventricle is in a state of morbid dilatation, the jugular veins are distended; the oppression in the chest is apt to be great; dropsical effusions occur: the complexion is usually livid, and bloody expectoration is very common. An habitually turgid state of the jugular veins, unattended with a pulsatory motion, is a characteristic symtom, and one still more so is the sound of the heart, on applying the ear or the stethoscope, perceived under the lower part of the sternum, and between the cartilages of the fifth and seventh ribs of the right side.

The palpitations which accompany this affection consist principally in an increase of the frequency and sound of the contractions, while at the same time the impulse of the heart's action is frequently feebler than in the ordinary state of the patient.

OF DILATATION WITH HYPERTROPHY OF THE VENTRICLES.

This is sometimes called *active aneurism of the heart*, and is much more common than simple dilatation, and still more so than hypertrophy without dilatation. It may exist in one or both ventricles. In the latter case, the heart acquires a very large size, sometimes more than triple that of the hand of the

* "Among many other equivocal symptoms of dilatation, I think that of pain, or rather a feeling of distress, in the region of the heart, and pain extending sometimes to the top of the sternum, between the shoulders or left arm, deserve notice."—*Dr. Forbes, in Laennec's Book on the Chest, p.* 607.

individual; the augmentation of volume being the effect of thickening of the walls of the ventricles, and proportional enlargement of their cavities. Their muscular substance also usually acquires a greater degree of solidity.

The *symptoms* are a compound of those of hypertrophy and dilatation. The sound of the heart's action is heard over a great extent; and sometimes, particularly in thin subjects and children, even the beating is very perceptible below the collar-bones, on the sides, and even a little on the left side of the back. In some such cases, the impulse and sound in certain parts of the chest and back, are greater even in persons of small stature and middling strength, than in the region of the heart in the case of a strong man in perfect health. The pulsations of the heart are sharp, definite, and violent, and even in the absence of palpitation, if we attentively observe the patient, we frequently perceive the head, limbs, and even the bed-clothes, strongly shaken at each contraction of the heart. If we press on the region of the heart, this organ seems to be irritated by the pressure, and beats more forcibly still. Percussion on the region of the heart elicits a very dull and obscure sound.

This probably is the affection most frequently attended with intense lividity of the face and extremities, great oppression, frequent or severe hæmoptysis, and extensive dropsy. The pulse is usually frequent, strong, hard, vibrating, and compressed with difficulty.

It will be readily perceived from what we have now said, that the predisposing causes of hypertrophy, and hypertrophy with dilatation *(active aneurism of the heart,)* are—a sanguine temperament, a robust constitution, vigour of life, a violent disposition,—and the violent efforts before enumerated, with the abuse of wine and spirits. It will likewise be seen that there is a suitable correspondence in the symptoms,—the pulse is frequent, strong, hard, and vibrating; the pulsation of the carotids, and even of the arteries of the extremities, are very visible, and the pulsations of the heart are quick, hard, and forcible.

In the mere dilatation of the cavities of the heart, on the contrary, the predisposing causes are the reverse, viz. a lymphatic temperament, a feeble constitution, a bad state of the humours, a timid disposition;—and it arises at the close of chronic diseases, in which great obstructions, debility, and nervousness are prominent symptoms. The pulse is weak, less frequent, soft, and often not very perceptible, and easily stifled by the slightest pressure; and the palpitations of the heart are weak, slower, duller, and more inward.

In addition to the diseases of the heart I have just described, we frequently meet with contractions or indurations of the

apertures and valves between the ventricles and auricles, and of the aortic sigmoid or semilunar valves, &c. The *symptoms* of disease in these parts are, cough, copious watery expectoration, dyspnœa, orthopnœa, frightful dreams and starting from sleep, slight spitting of blood—the blood being dark coloured, with a disposition to similar hæmorrhage from the nose, the mucous surfaces and liver;—the peculiar and most distinctive symptoms are, more violent, more obstinate, and more easily excited paroxysms of palpitation and dyspnœa than we meet with in other cardiac affections; ordinary irregularity of action in the heart; irregularity and inequality of the pulse; pain in the region of the heart; a peculiar vibrative or *purring tremor*, sensible to the hand applied to the præcordial region; and a *rasping* or *bellows-sound* in the heart, heard readily on applying the ear or stethoscope to the præcordial region.

In considerable disease of any aperture or valve of the heart, the pulse is intermittent, irregular and unequal—some of its beats being very strong, others weak; and this is more especially the case under hurried motion, or strong exercise, and when the *mitral* valve is the seat of disease. Next to this, the *tricuspid* valve is that which, when the subject of disorganization, occasions the greatest irregularity and inequality of the pulse.

This irregularity must not be confounded with the intermission so frequent in great functional disorder of the digestive organs, and of the heart, for it is very different; it being not an accidental, but an essential symptom,—not one which occasionally presents itself, but pretty uniform.

I have now endeavoured to lay down clearly the signs of the most common diseases of the heart, but my readers should remember, that it is admitted by the profession that these are always diseases respecting which we shall be most liable to commit great errors in diagnosis—that is, in regard to their nature, and to what extent the heart is affected, if seriously affected at all. It is not uncommon for persons to be told they have some organic disease of the heart, which ultimately proves only to have been a sympathetic affection; and it must be confessed, on the other hand, that persons in early life, who are otherwise of good constitutions, may be affected with considerable hypertrophy or dilatation, without experiencing for years much inconvenience.

Wherever disease of the heart does exist, it is certain that those persons who indulge in sedentary or intemperate habits, and weaken their constitutions by want of exercise, will experience serious symptoms in a much shorter period than those careful people who endeavour to improve their general condition by the usual measures.

OF THE TREATMENT OF ORGANIC DISEASES OF THE HEART.

These maladies are admitted to be serious ones; still my opinion is, that many professional men entertain too unfavorable an opinion in regard to their curability and relief. In this sentiment I am supported by very able physicians, among others by the well known French physician Laennec, and by our own countryman, a physician scarcely less celebrated, Dr. James Johnson, who considers the general estimate on this subject, "not only a false one, but pernicious in its consequences both to the patient and the practitioner." At this moment I have a patient whose case was thought to be a lost one from hypertrophy of the heart, and which, from the great and gratifying change effected in it, augments the list of cases coming under my own observation, in which the subjects have experienced either cure or a great amelioration. This gentleman, aged about fifty, had all the usual symptoms (pp. 9 and 13) of *acute aneurism* of the left ventricle—*hypertrophy with dilatation*, and the most violent means were used in order to relieve him. His physician, after using the stethoscope, gave an opinion that there was little hope for him, and apparently from this conviction paid at length little attention to the case; he was very improperly ordered large doses of colchicum daily, and allowed to continue this for three months! At the end of this period I saw him, a pitiable object of debility, nervousness and breathlessness: he looked cadaverous; he could scarcely walk across the room from weakness and giddiness; his whole frame shook from debility, even when he stood erect; and on arriving at the top of an easy flight of stairs, he was exhausted, breathless, and compelled to sink down on the sofa to recover himself. He has, however, recovered in a surprising manner, very much beyond the expectation of his friends, and the improvement in the state of his heart has been such as to have greatly surprised his household apothecary.

In the treatment of hypertrophy, or hypertrophy with dilatation, the best remedies are,—a very spare diet of easily-digested food, mercurial alteratives, sarsaparilla, digitalis, saline diuretics, occasional bleedings, purgatives, small doses of colchicum, and gentle exercise in a mild country air.

Frequent copious blood-lettings have been strongly advised in order to reduce and keep down the momentum of the circulation, by lessening the quantity of blood; but this is a practice I very much disapprove of, and warn all against as uncalled for and injurious. I prefer small bleedings, very close

attention being paid to the adoption of a spare diet. Perseverance in a reduced diet has several advantages over large venesection, the chief of which are, that it will accomplish the reduction of the quantity of blood almost to any reasonable amount, and this it will effect by means less violent and more natural than the frequent use of the lancet.* I think the abstraction of some blood very desirable—it will aid us in our efforts, but I trust chiefly and most confidently to the constant use of a very spare vegetable diet, the patient drinking nothing but water, or thin barley water.

Mercurial and alterative medicines will often be of uncommon service, if skilfully prescribed and varied, according to the state of the patient, and the exigencies of the case. One of the best alterative pills is that marked No. 22 in this volume, or the No. 98 in the *Domestic Medicine*. The following pill, however, I ordinarily prefer to all others:—

> Take of calomel, one grain and a half; emetic tartar, two grains for the first week, then three grains or more; precipitated sulphuret of antimony, ten grains; powder of gum guaiacum, one scruple; extract of henbane, a sufficient quantity to make the whole into a mass, after the ingredients have first been well rubbed together. Divide the mass into ten pills, and take one night and morning.

Together with the pill in some cases, in others alone, I would recommend the best sarsaparilla powder to be tried in doses of a drachm, or a drachm and a half, thrice a day, in simple or some aromatic water. In one very strongly marked case of hypertrophy with dilatation, in a young lady about nineteen, I found the sarsaparilla powder of striking advantage. This lady did not ultimately recover; the disease was of so aggravated a nature that the heart could be felt beating strongly in the back, and there even, as well as in the front of the chest, it could be heard pumping forth its blood with a noise very similar to that of a large bellows.† She had symp-

* After I had written the above remarks, on looking into the *Cyclopædia of Practical Medicine*, under the article on *Hypertrophy of the Heart*, by Dr. Hope, *vol.* ii. *p.* 546, I found these observations in point—"Our objections to the treatment described" (of frequent large bleedings) "are founded on the circumstance that, though we have invariably found the greatest benefit to be derived from sparing abstractions of blood, at intervals of two or three weeks or more, we have constantly noticed that when from the severity of the dyspnœa and palpitation in the advanced stages of the complaint, the practitioner was induced, or thought himself compelled, to resort to frequent bleedings at short intervals, the patient, though perhaps momentarily relieved, progressively declined from that moment, the paroxysms recurring more frequently and with greater violence, until they eventually terminated in his destruction."

† Ossification of the valves of the heart rarely occurs under twenty-five years of age, but we have every reason to believe such to have existed in the case of this young lady, for two of the principal diagnostic signs of this ossification were present, namely, a peculiar jar or vibration of the pulse, and the bellows sound in the action of the heart.

toms of paralysis before I saw her, for which she was freely and repeatedly bled, and other active measures were had recourse to; there were present also symptoms of rheumatism, and great pain in the heart, with so much debility that she could not move across the room. Notwithstanding, the sarsaparilla powder relieved her in a very striking manner, by lessening the pain, removing the rheumatism, quieting the pulse, improving her rest at night, and by strengthening her so much that she was able to come down stairs; and if it could effect so much in one of the worst cases ever seen, one altogether hopeless at that period, and one in which all the other means tried did not together produce a tenth of the benefit derived from this, what might it not do in other cases, not of a hopeless character?

I think the hydriodate of potash (now called *iodide of potassium,)* may sometimes be useful; and the saline diuretics, such as cream of tartar, tartrate of potash, and nitre, are decidedly so,—to which we may add the broom seeds or tops, and sweet spirit of nitre. This class of remedies is evidently indicated when symptoms of dropsy supervene.* Pellitory of the wall (*parietaria officinalis*) is likewise a good medicine.

The digitalis (see also p. 20) may often be advantageously combined with the squill pill and extract of henbane, more especially if cough is troublesome; and should œdema of the ankles, or other symptoms of dropsy be present, the patient should add thereto a small quantity of calomel and Dover's powder. This is a combination from which I have seen the most gratifying results in many cases.

A patient named Pettiford came to me one morning some years since, with his legs swelled almost to the size of small barrels; this of course greatly lessened his power of locomotion, but it was equally abridged by a severe affection of the heart, and a difficulty of respiration consequent upon it. He could scarcely drag himself into the house. The account he gave was, that he had been ill several months, and had been under medical treatment, and taken a good deal of medicine, without any benefit; instead of improving, he declined; his difficulty of respiration, and of sleeping in any other than an erect posture had become extreme; he had a violent cough, increasing dropsy of the feet, legs and thighs, scanty high-coloured urine:—in short, he looked like a man with a broken constitution, and who from the severity of a dire disease was

* "We have found many patients, conscious of the benefit which they derived from this class of remedies, to be in the constant habit of taking cream of tartar, broom-tea, and other similar popular medicines. One patient affected with contraction of the mitral valve to the size of an ordinary pea, by these means warded off dropsy, beyond the slightest œdema of the feet, for ten years."—*Cyclopædia of Practical Medicine, vol.* ii. p. 548.

descending fast into the grave. However, we were called upon to endeavour at least to relieve him, and I prescribed a medicine similar to the following, with the expectation of some temporary relief, but without the most distant hope of cure. Nevertheless, it did cure him for the time; his dropsy disappeared, his breathing became free, his cough left him, the strong action of the heart was much reduced, and he was able to attend to laborious business.

About fourteen months afterwards he applied to me again with the same symptoms, and they were relieved by the same means, as fully as before. Again, at the end of fourteen or fifteen months, he fell under the grasp of his enemy; and in order to save expence, or from some other cause, he was induced to employ a general practitioner, but he grew worse and worse, and was at last compelled to send for me. On visiting him I found all his old symptoms had returned; I resumed the same plan of treatment, and he again recovered, left off medicine, and continued tolerably well for another year or more, at the end of which period his enemy again appeared, and in spite of all we could do he died. In this last attack I was sent for late—he had been suffering severely for very many days; and it is proper to add, that throughout he was in his occupations and affairs most unfavorably situated for medical treatment—a very material point in diseases of the heart, one which generally makes a very great difference in the result of our endeavours. On dissection, the heart was found much enlarged, and otherwise diseased—there being several small fatty tumours at the superior part of more than one of its cavities.

This case shows very satisfactorily the power of medicine over severe organic affection of the heart. Besides a draught composed of carbonate of ammonia, camphor mixture, and tincture of digitalis, which he took twice a day, he took one of the following pills thrice a day:

> Take of calomel, ten grains; emetic tartar, one grain and a half; compound squill pill, twenty-four grains; compound powder of ipecacuanha, fifteen grains; aromatic confection, a sufficient quantity to make the mass, which is to be divided into ten pills.

In all diseases of this organ, with the exception perhaps of *simple dilatation*, the warm bath, especially of sea water, is very useful—it may be taken three or four times a week at ninety-eight degrees. The cold bath is inadmissible in true hypertrophy; but in dilatation, which is a disease of diminshed strength and vascular activity, the free use of cold water is of the utmost value and importance.

Hydrocyanic acid is often recommended in the present ma-

ladies, but I do not think it of use except in the class of sympathetic affections, to be noticed presently.

When dropsy supervenes on organic disease of the heart purgatives are often of great service; they carry off the water, and sometimes assist materially in relieving the heart for a considerable time. The pills above prescribed in the case of Pettiford acted briskly as a purgative, during a portion of the time in which they were taken, and they will generally do so, if the squills and calomel are ordered in suitable proportions. A case is related by the able French physician Corvisart against himself, which is very instructive, and proves that physicians sometimes despair too soon of their patients in this disease, and abandon them to certain death when they might preserve their life. One of Corvisart's friends had been for several years suffering from diseased heart, and for some time had laboured under *ascites* and *anasarca*, for the removal of which bleeding, diuretics, and some purgatives had been employed without success. Corvisart looked upon his death as certain, and made the patient's friends acquainted with his opinion. A few days afterwards a quack was consulted, famous at that time for the cure of dropsy. He gave the patient a powerfully drastic purgative in two ounces of brandy, with the immediate effect of producing twenty alvine evacuations. From this time the urine became more copious; and the same remedy being repeated with similar effect, every day for upwards of a week, the dropsical symptoms completely disappeared, and the patient afterwards lived ten years in a very tolerable state of health.

Some useful hints in regard to the different kinds of purgatives will be found in my DOMESTIC MEDICINE, under the article DROPSY. The following is a simple but very efficacious form of purgative medicine.

> Take of tartrate of potash, one ounce and a half; sulphate of potash, half an ounce; powder of squills, two drachms; tartar emetic, two grains. Mix them well together, and take a tea-spoonful or more four or five times daily, in water.

Baron Larrey, in his *Clinique Chirurgicale*, has related some cases, from which it would appear that counter-irritation by means of *moxa* is capable of doing much good in dilatation and enlargement of the heart. He assures us, that during a period of more than thirty years, he has had frequent opportunities of witnessing the beneficial effects of this counter-irritation. The Baron evidently makes a hobby of the *moxa*, yet it is no doubt a useful auxiliary. Adopting the opinion that in organic affections of the heart, the remote cause almost always consists in "some morbific principle, whether syphilitic, scrophulous, herpetic, or otherwise," he lays down two indications to be

pursued in the treatment of these cardiac disorders, namely, to counteract or destroy the primary specific cause, by specific remedies; and to draw off the irritation from the heart, by establishing an external counter-irritation by means of *moxa*. Against the supposed specific he employs mercurial remedies, (as we have already recommended,) and he declares these were always highly beneficial when combined with counter-irritation. In active hypertrophy he uses local depletion over the region of the heart, after which he applies the *moxa*.

Digitalis will be found a very useful assistant in our endeavours to control the heart's action, and in allaying the irritability of the nervous system, so frequently accompanying these diseases. With this view fifteen or twenty drops of the tincture of digitalis may be taken twice or thrice a day, in ten drachms of camphor mixture, with a drachm of syrup of tolu or ginger in each draught.

Tartar emetic is an invaluable remedy in medical practice, and its aid may be called in with great effect in organic diseases of the heart, and also in some of its sympathetic affections. It possesses great power in controlling the action of the organ, in allaying irritability, and reducing inflammatory symptoms. These are the reasons which have induced me to prescribe it largely in the alterative pill at p. 16, and in many severe cases I would have it taken in still larger doses, even to the extent, perhaps, of a grain or more, thrice a day. Its value is known by medical practitioners, but it is not so highly appreciated, or so much employed, as it merits. In disease of the heart from rheumatism it is of pre-eminent utility; and in hœmoptysis I give it with great confidence.

The regulation of the passions and of the diet and regimen are points of uncommon moment in all disorders in which the heart is concerned, whether they are organic, functional, or merely sympathetic.

A calm, patient, resigned, equable state of mind is worth all the pains which the patient may be called upon to take in order to its attainment. Such a state of mind the moment it is gained, exerts a tranquillizing influence on this most important organ of the most salutary description. In seeking it, the patient ought seriously and devoutly to call in the powerful aid of the Holy Scriptures and religious truth, and in doing so, he cannot fail to be a great and permanent gainer.

The exercises ought to be of the gentlest character. There should be little walking; the best kind of exercise is driving in an open carriage in favorable weather, or, what is still better,—much better,—riding a very quiet pony.

The diet should be exactly such as I have ordered for *Indigestion* in the DOMESTIC MEDICINE. If the beating of the heart is unusually strong, and the pulse full and hard, only a

very small quantity of animal food can be allowed; then the diet should consist chiefly of oysters, eggs, pudding, milk, bread, biscuit, and the most digestible vegetables. The remarks on diet under the next article on sympathetic affections of the heart highly merit the attention of all persons who have any serious disease of the organ, for although attention to diet will not then cure the malady, it will assist very much in relieving the symptoms.

The best situation is one sheltered from the East and North, and the air ought to be very mild, equable and dry, indeed, the situation and air required are exactly such as we have advised in pulmonary consumption.

The left auriculo-ventricular aperture is that which most frequently becomes the seat of contraction, from induration and ossification; and these changes are accordingly found most complete in it.* Cartilaginous or osseous induration of the semilunar valves of the aorta is likewise very frequent; some physicians think it the most frequent of all the organic lesions of the heart. The treatment of these affections does not differ from what we have already prescribed, only greater care, rest, and quietude will be necessary in order to the full relief of the patient, and the prolongation of his life, than in other diseases of the heart. We have here usually a great deal of darting, strong pain in the heart. In these cases, as I have remarked at p. 14, the patient is very liable to hæmorrhage from the nose, lungs, or bowels, and the only way ordinarily to remove the hæmorrhage, is to relieve the heart from accumulated blood by, if possible, improving its condition. These are diseases which prove what great mistakes are sometimes made in medical practice, for many patients have been thought to have *hœmoptysis* from disease of the lungs, or *dysentery* from disease in the bowels, whose only disease was in the heart, and especially in its apertures and valves. The way in which we explain the source of the blood discharged from the bowels in these supposed *dysenteric* affections, is thus:—the left cavities of the heart, (for these have its apertures and valves most frequently diseased,) not properly emptying themselves, the right cannot become unloaded; the blood, therefore, in the large venous trunks going to the heart accumulates; and hence arises the sanguineous distention of the liver, so common in diseases of the heart, as also the accumulation of blood in the veins of the intestines, and hæmorrhage from the intestines, because thus the system seeks to relieve itself. Hæmorrhage from the lungs may be explained precisely in the same way.

* "I have often observed these contractions so great, that I have been astonished that the thready stream of blood which these clefts rather than apertures permitted to pass, could keep up a languishing life."—*Corvisart on Diseases of the Heart, p.* 175.

Bitter and stomachic medicines, such as gentian, chamomiles, quinine, rhubarb and ipecacuanha, oxyde of bismuth, sulphate of zinc and extract of hop, hydrocyanic acid, &c. are sometimes useful in the diseases of the heart we have treated of, provided they are very skilfully employed; but it is more especially in *simple dilatation* that they are called for. *Simple dilatation* of any cavity of the heart discovers debility; we have said the pulse is weak, and invigorating means are required. The cold bath is indicated in this case, with tonics; indeed, the treatment is precisely what we have advised under *Indigestion* in the DOMESTIC MEDICINE, (and in my distinct *Treatise on Indigestion*,) for those cases with a feeble pulse, and requiring tonic measures, and therefore need not be enlarged upon here. In addition to what we have there said, we have to urge great caution in the matter of exercise; the weak and irritable state of the heart must always be borne in mind, and although exercise may be more freely taken here than in hypertrophy of the heart, or disease of its valves, yet it cannot with impunity be so free and active as in dyspepsia. Horse exercise is admirably adapted to such instances. The following is a valuable pill in these cases:—

Take of sulphate of zinc, twelve or fifteen grains; the best gum myrrh, one drachm; extract of hemlock or hop, a sufficient quantity to make the mass, which is to be divided into twenty pills. One to be taken thrice a day.

It is of great moment in all affections of the heart that the patient should relinquish and avoid all occupations which require the exertion of extraordinary strength, or the use of violent efforts, or impose a necessity for a constrained and unnatural position for many consecutive hours. Therefore, the occupations of the mill-wright, the porter, the musician, the tailor, shoemaker, leather-dresser, and such like, are very injurious, and certain to retard the improvement of the patient. The lifting of heavy weights,—running,—walking fast must be studiously avoided; and so should reading much aloud.

OF THE SYMPATHETIC AFFECTIONS OF THE HEART.

Symptoms very similar to those which have already been mentioned as belonging to organic affections of the heart, are not unfrequently the pure result of a sympathetic irritation of this important organ without any structural lesion whatever. It is a well known fact, that the heart is liable to be excited into vehement and tumultuous action, by a variety of causes

not immediately connected with derangement of its structure; and the most alarming instances of this kind frequently result from an irritation seated in the digestive apparatus, or in some remote part of the system. Indeed, in most persons of a nervous temperament considerable disorder of the stomach or bowels is sufficient to give rise to palpitation, and uneasy sensation about the heart; and should anything then occur greatly to agitate the mind, the palpitations, pain and other uncomfortable feelings in the præcordial region will often present themselves very strongly marked, and continue for a considerable period.*

Irritation seated in the kidneys, womb, liver, and large intestines sometimes excite severe fits of palpitation, &c. They are particularly apt to occur about the age of puberty in young females, or just before the appearance of the menses, and in nervous females, more especially those who neglect exercise in the open air, and those who labour under chronic hysteric affections of the heart. I have found great irritation in the rectum, especially when complicated with stricture, a powerful cause of affection of the heart, and could relate some striking and instructive cases in proof of this. In these instances the relief of the intestinal irritation, and of the stricture, by the proper means, completely dissipated all cardiac uneasiness.

The *symptoms* by which we distinguish mere nervous affections of the heart from those which are organic are, that the palpitations, pain, &c. here often arise while the patient is quiet, from heartburn or other dyspeptic feelings,—or from mental emotions, anxiety, sudden fright, going off as soon as these causes have ceased to operate. The pulse is usually quick and feeble only, or temporarily intermittent, and the urine limpid, and increased in quantity. Strong exercise sometimes very much relieves these affections; and the action of the heart is not very strong, nor does it sensibly elevate the head of the observer who applies the stethoscope or his ear to the chest. The chest also sounds well on percussion; and the patient usually has no difficulty of breathing, even on ascending rising ground. All these symptoms are different in organic diseases of the heart.

Treatment. Many mistakes have been made even by physicians in pronouncing the patient to have diseased heart,

* "If you see a case in which there is irregularity of the heart's action, with a foul tongue, irregular action of the liver, the stools showing either a deficiency or a depravity of the bile: when, indeed, there are any indications of disorder of the stomach, liver, and bowels, be careful of giving an opinion as to the existence of organic diseases of the heart. In all these cases, try first to remove the disorder of the stomach, liver, and bowels."—*Armstrong's Lectures on the Practice of Physic, p.* 800.

when there has been only sympathetic irritation of the organ. When we consider how carelessly and grossly most people live, and how irritable and sympathetic an organ the heart is, we cannot wonder that its action is very liable to be increased, diminished or oppressed, by improper food, by mental emotions, and by deranged secretions in other parts. Pork, veal, rich pastry, heavy dumplings, &c. have been known to give rise speedily to oppression about the heart, and irregularity of pulse. Dr. Armstrong says, *(Lectures on the Practice of Physic, p. 799)*:

"In some of these cases, the person dies as suddenly as if he were shot through the brain, or through the heart itself. One of the first cases of typhous fever I attended was in a school-fellow and friend of mine. He was convalescent, and as I was then ignorant of this connexion between disorders of the stomach and disorders of the heart, I neglected to give any particular directions as to the quality and quantity of his diet during the state of convalescence. I was sent for one day, and upon my arrival I found him dead; he expired instantly after having eaten a large and indigestible meal. I have seen other cases of this kind."

In such a state the proper course is to give a glass or two of brandy, and then to relieve the stomach as quickly as possible, by administering an emetic of a scruple of sulphate of zinc.

The means by which sympathetic affections of the heart are to be cured are chiefly strict attention to a diet, moderate in quantity, of very easily digested food; the regulation of the bowels by means of brown bread, friction, and the compound rhubarb pill, or the gentle measures recommended in the author's DOMESTIC MEDICINE, under COSTIVENESS; restoring healthy secretions by means of the alterative pill No. 98 or 99 in that book, or the mild alterative No. 22 in this volume; and invigorating the digestive organs by the use of the pills No. 102, or 103, or 104, or 106, or 115, and by taking a great deal of exercise in the country, with the use of the shower bath, and other modes of employing cold water. In the book just now referred to, and THE BEST METHODS OF IMPROVING HEALTH, the patient will find clear and ample directions for accomplishing both these indications. The pills No. 102 are very valuable, and also No. 104.

The opinion that medicine will cure chronic disorders is an error no less serious than common. Dietetic rules are of vast importance in these disorders, and an attention to them will alone cure many cases, more especially if the patient will take regular active exercise in the country.* A six month's course

* "So long ago as the year 1811, I saw a lady who for a long time had been subject to violent palpitations of the heart, and extreme irregularity of its action, so that at length she was unable to walk across the room without assistance.

of *Training* will cure all sympathetic disorders of the heart. The patient should not lose blood unless his habit is very full, with a florid complexion. Medical men are too apt to resort to the lancet when they find the heart in a state of tumultuous action.

An intermittent pulse is very common from a sympathetic affection of the heart, particularly under continued errors in diet; but this, together with the other symptoms, will disappear by the use of the means we have enforced.

It is worth while mentioning, that in young, robust persons sympathetic palpitation will sometimes be so violent, and the action of the heart so extremely strong and energetic, as to be easily confounded with organic injury by a heedless or unskilful practitioner. This is occasionally met with in strong young women suffering from retention or suppression of the natural discharges, and should always be borne in mind in the case of young females. I have seen a great number of cases of this kind in young women, of so marked a character as would have certainly deceived me, had I not been on my guard. All these patients recovered by the use of the means herein recommended; and in such cases a pill of two grains of sulphate of iron, two of aloes, and half a grain of mastic, given twice a day is of great service.

In all sympathetic *disorders of the heart* the PROPER USE OF COLD WATER is one of the best and most efficacious means of cure which can be resorted to, and therefore I would earnestly exhort all such sufferers to take little physic and use abundance of cold water.

Every now and then she was suddenly seized with great difficulty of breathing, and coldness of the hands and feet, her face was flushed, she was powerless, and sunk from off her chair upon the ground. She went on in this way for twelve months; she had consulted several physicians, who agreed that she had organic disease of the heart. When I saw her, I thought it might possibly depend upon the stomach; and upon enquiring into her diet, I found it all originated from a small quantity of pastry which she always took once in twenty-four hours, or oftener. By withdrawing this, and giving her a small quantity of animal food, she recovered very rapidly indeed. I saw a Lady in London with the same symptoms, with a torpid colon, and a foul tongue. She was supposed to labor under organic disease of the heart by the physicians whom she had consulted. I regulated the diet carefully; I acted gently on the liver, and moderately on the bowels; and all her symptoms disappeared with great rapidity."—*Armstrong's Lectures*, p. 300.

A MEDICAL GLOSSARY.

A A (contracted from *ana*) signifies of each.

ABDOMEN (from *abdo* to hide). The belly. The cavity situated between the thorax or chest above, and the pelvis below.

ABORTION. A miscarriage.

ABSORBENTS. The small, transparent vessels, which take up substances from the surface of the body, or from any cavity, and carry it into the blood.

ACACIA GUM. Gum arabic.

ACME. The height or crisis.

ACUPUNCTURE. Making small punctures with a needle in a part affected with pain.

ÆTHIOP'S MINERAL. The black sulphuret of mercury.

ALCOHOL. Rectified spirit of wine.

ALIMENTARY CANAL. A name given to the whole of those passages which the food passes through, from the mouth to the anus.

ALTERATIVES. Medicines which re-establish the healthy functions of the animal economy, without producing any very sensible evacuation by perspiration, vomiting, or purging.

ALVINE CONCRETIONS. Concretions or calculi formed in the stomach, or bowels.

ALVINE EVACUATIONS. Evacuations from the intestines.

AMAUROSIS. The same disease of the eye as is sometimes called *Gutta Serena*. It is a total loss of sight, without any visible injury to the organ.

AMENTIA. Idiotism.

ANASARCA. General dropsy; the fluid being collected between the skin and flesh in the cellular membrane of the limbs, or any other part of the body.

ANCHYLOSIS. A stiff joint.

ANEURISM. The dilatation of a vessel, applicable especially to the dilatation of the heart and arteries.

ANGINA. A sore throat.

ANGINA PARŒTIDEA. Mumps.

ANGINA PECTORIS. Breast-pang.

ANGINA TONSILLARIS. Ordinary sore-throat.

ANGINA TRACHEALIS. Croup.

ANODYNE. A remedy capable of directly relieving pain.

ANŒMIA. Without blood.

ANOREXIA. A want of appetite, without loathing of food.

ANTHELMINTIC. Substances which procure the evacuation of worms from the stomach and bowels.

ANTHRAX. A carbuncle; a hard, circumscribed, inflammatory, burning tumour.

ANTIPHLOGISTIC. Those means which reduce inflammation.

ANTISCORBUTIC. Those things which are good to cure or ward off scurvy.

ANTISEPTIC. That which prevents putrefaction.

ANUS. The fundament; the lower extremity of the rectum.

AORTA. The great artery of the heart.

ARTERIES. Vessels which carry the blood from the heart.

ASCITES. Dropsy of the belly.

ASTHENIA, or ASTHENIC. Debility.

ATROPHY. Wasting.

AXILLA. The arm-pit.

BOUGIE. This signifies in French *a wax taper*; it is an instrument used by surgeons to dilate the gullet, rectum, or urethra.

BRONCHIA. The terminations of the wind-pipe.

BRONCHITIS. Inflammation of the bronchia.

BUFFY COAT. The buff-coloured matter which appears on the surface of the solid portion of blood, drawn in certain diseases.

CACHEXIA. A depraved habit of body.

CÆCUM. The head of the colon.

CAPILLARY VESSELS. Those which intervene between the minute arteries and veins.

CARDIA. The upper orifice of the stomach.

CARDIALGIA. Heart-burn.

CARIES. Ulceration of the bones.
CEREBELLUM. The posterior-inferior part of the brain.
CEREBRUM. The chief and upper portion of the brain.
CERVIX. The neck.
COLLIQUATIVE. Any excessive evacuation.
COMA. Drowsiness.
CORYZA. Cold in the head.
CRANIUM. The skull, or cavity which contains the brain.
CUTICLE. The outer or scarf-skin; under this is the cutis or true skin. The cuticle is that which is separated in blistering.

DEGLUTITION. The act of swallowing.
DEMENTIA. Idiotcy.
DEMULCENTS. Softening medicines.
DEOBSTRUENTS. Medicines which remove obstructions.
DESQUAMATION. The falling off of the cuticle, in scales.
DIAGNOSIS. The correct distinguishing of diseases which resemble each other.
DIATHESIS. The constitutional disposition or habit.
DIURESIS. A large flow of urine.
DOUCHE. The affusion of water from a height.
DRASTICS. Very powerful purgatives.
DURA MATER. The outer and thicker membrane of the brain.
DYSPNŒA. Difficulty of breathing.

ECCHYMOSIS. Extravasated blood.
ECLAMPSIA. Rapid convulsive motions.
ECTHYMA. An irritable pustule.
ECTROPIUM. Eversion of the eye-lids.
ECZEMA. Minute vesicles, which form into thin crusts.
ELEPHANTIASIS. A disease of hot climates affecting the lower limbs.
EMMENAGOGUES. Medicines which promote the menstrual discharge.
EMPHYSEMA. An external swelling produced by diffused air.
EMPYEMA. A collection of pus in the cavity of the chest.
ENDEMICS. Diseases peculiar to the inhabitants of particular countries.
ENEMA. A clyster or lavement.
ENTROPIUM. Inversion of the eye-lids.
ENEURESIS. Incontinence of urine.
EPIDERMIS. The cuticle or scarf-skin.
EPIGASTRIUM. The part of the abdomen immediately over the stomach; hence that region is called the *Epigastric Region.*
EPIGLOTTIS. An oval cartilage at the root of the tongue that falls upon the glottis, and shuts up the passage into the windpipe when food or drink is swallowed.
EPISTAXIS. Bleeding from the nose.
ERETHISMUS. Constitutional irritation.
ERRHINES. Substances which excite sneezing.
ERYTHEMA. Morbid redness or blush of the skin.
ESCHAR. A dry slough.
EUSTACHIAN TUBE. A canal which extends from the palate to the ear.
EXACERBATION. An increase of fever.
EXANTHEMATA. Rashes, or superficial red patches.
EXCRETION. A general term for excrementitious secretions, as urine, fæces, perspiration, &c.
EXFOLIATION. The separation of a dead piece of bone from the living.
EXOSTOSIS. An excrescence on a bone.
EXTRAVASATION. The passing of fluids out of their proper vessels.

FAUCES. The cavity at the back of the throat, behind the tongue, arch of the palate, uvula and tonsils.
FEBRIFUGE. A remedy against fever.
FLUOR ALBUS. The whites.
FŒTUS. The child in the womb, after the fourth month.

GASTRODYNIA. Pain in the stomach.
GESTATION. The pregnant state.
GLOBUS HYSTERICUS. A peculiar sensation attendant on hysterics, as of a ball ascending from the stomach up the chest to the neck and throat.
GLOTTIS. The opening at the top of the windpipe (or larynx), at the bottom of the tongue.
GOITRE. The Derbyshire neck.
GONORRHŒA. A discharge of purulent infectious matter from the urethra and vagina.
GRANULATIONS. The small grain-like fleshy bodies or points which form on the surface of ulcers, during healing.

HÆMOPTYSIS. A spitting of blood.
HÆMORRHOIDS. The piles.
HECTIC FEVER. An habitual fever.
HEMERALOPIA. Night blindness.
HEMICRANIA. A pain on one side of the head only.
HEPATIZATION. A change induced in the lungs by disease, in which it resembles the liver in firmness, weight, &c.

HOMŒOPATHY. A mode of treating diseases by the administration of very minute doses of medicines. The principles of this method are absurd, but the practice sometimes very useful. In the treatment of acute diseases their mode of proceeding is however very destructive.

HYDATID. A pellucid cyst, containing a transparent fluid, occasionally found in certain parts of the human body.

HYDRAGOGUES. Cathartics producing watery evacuations.

HYDROCEPHALUS. Dropsy of the brain.

HYGIEIA. The preservation of health.

HYPERTROPHY. Excessive nutrition, whereby there is an increase of thickness or bulk.

IDOPATHIC. A primary disease; it is opposed to symptomatic.

IDIOSYNCRASY. Individual peculiarity.

ILEUS. Great costiveness, with twitching about the navel.

INGESTA. A term signifying the food and drink.

INTEGUMENTS. The coverings of any part of the body, as the cuticle, cellular membrane, &c.

INTUS-SUSCEPTIO. The descent of a higher portion of intestine into a lower one.

IRIS. The colouring ring which surrounds the pupil of the eye.

LARYNX. The organ of voice. It is the cartilaginous head of the windpipe.

LATERITIOUS. The red sediment sometimes deposited from the urine.

LAXATIVES. Mild purgatives.

LEUCORRHŒA. The *fluor albus* or whites.

LIPPITUDO. A chronic inflammation of the eye-lids.

LITHONTRIPTICS. Medicines supposed capable of dissolving stone in the bladder.

LITHOTOMY. The operation of cutting into the bladder, in order to extract a stone.

LOCHIA. The discharge which takes place from the womb for some days after delivery.

LUNAR CAUSTIC. The nitrate of silver.

LYMPHATICS. Very minute absorbing tubes which pervade all parts of the body carrying lymph.

MARASMUS. Emaciation.

MELANOSIS. A morbid product of a dark brown or black colour.

MENORRHAGIA. A morbidly profuse discharge of the menses.

METASTASIS. The translation of a disease from one part to another.

MINDERERUS' SPIRIT. A solution of acetate of ammonia.

MONOMANIA. Aberration of mind on one point only; or rather on one point strikingly, while the patient is tolerably correct in others.

MORBID. Diseased.

NÆVUS. Mother-spots.

NECROSIS. Mortification of bones.

NEURALGIA. Pain in a nerve.

NODE. A swelling on a bone from a foul cause.

NOSTALGIA. Home-longing.

NYCTALOPIA. An affection of the sight, in which the patient is blind in the day, but sees very well at night.

OBSTETRIC. Belonging to midwifery.

OCCIPUT. The back part of the head.

ŒDEMA. A dropsical swelling.

ŒSOPHAGUS. The passage by which the food is conveyed from the mouth to the stomach.

OSSIFICATION. The formation of bone.

ORTHOPNŒA. A difficulty of breathing so great that it can only take place in the erect position.

PATHOGNOMONIC. Symptoms which are characteristic of, and peculiar to, a disease.

PATHOLOGY. The science of the investigation of the nature of diseases.

PARACENTESIS. Tapping.

PARENCHYMA. The spongy and cellular tissue which connects the substance of the viscera.

PELVIS. The cavity below the abdomen;—the lowest part of the belly. It contains the rectum, urinary bladder, and internal organs of generation.

PERCUSSION. The act of striking with the points of the fingers upon the chest, abdomen, &c. in order to produce sounds by which the state of the subjacent parts may be ascertained.

PERICARDIUM. The membrane which surrounds the heart.

PERIOSTEUM. The membrane immediately investing the bones.

PERIPNEUMONIA-NOTHA. A form of bronchitis, in which debility is evident.
PERISTALTIC MOTION. The natural movement, or vermicular motion of the intestines.
PERITONÆUM. The membrane which lines the anterior of the abdomen
PHARYNX. The membranous hollow or bag at the back part of the mouth, leading to the stomach.
PHLEGMASIÆ. A general term for local inflammations.
PHTHISIS PULMONALIS. Consumption from disease of the lungs.
PHYSIOLOGY. That branch of medical science which treats of the functions of the human body.
PIA MATER. The inner and thinner membrane of the brain.
PITUITOUS. Consisting of phlegm.
PLEXUS. A net-work of blood vessels, or nerves.
PNEUMONIA. Inflammation of the substance of the lungs.
PRIMÆ VIÆ. The first passages, that is, the stomach and intestinal canal.
PROCIDENTIA. A prolapsus.
PROGNOSIS. The doctrine or faculty of foreseeing and predicting what will be the issue of diseases.
PROPHYLACTIC. The means employed for the preservation of health.
PROXIMATE CAUSE. The immediate cause or characteristic condition of certain diseased manifestations.
PTERYGIUM. A thickened state of the conjunctive membrane of the eye.
PTISAN. Barley broth.
PTYALISM. Salivation.
PUERPERAL. Belonging to child-bed.
PURULENT. Of the nature of pus.
PUS. The cream-coloured, yellowish, or greenish-yellow fluid formed by the process of suppuration.
PYLORUS. The lower orifice of the stomach.
PYROSIS. Water-brash.

RABIES. Madness, occurring after the bite of a rabid animal.
RECTUM. The last intestine, terminating in the anus.
RESOLUTION. The subsidence of inflammation in the most favorable manner, without abscess, ulceration, &c.
RETINA. The expansion of the optic nerve on the inner and deeper surface of the eye.
REVULSION. The occurrence of a secondary disease in a situation remote from that of the primary affection.
ROSY DROP. Carbuncled face.
RUBEFACIENT. A substance which, when applied externally, induces a redness without blistering.
RUBEOLA. Measles.

SACRUM. The broad bone at the bottom of the spine.
SAPHENA. The name of the most prominent vein of the leg.
SATURATED. A fluid, which holds in solution as much of any substance as it can dissolve, is said to be saturated with it.
SCALPEL. A straight knife, used in surgery.
SCAPULA. The shoulder-blade.
SCARIFICATION. The making of small incisions or punctures, for the purpose of abstracting blood, aqueous fluid, or air.
SCIATICA. Hip-gout; or rather hip rheumatism.
SCYBULA. Small indurated balls of fæces.
SEBACEOUS GLANDS. Those which secrete an uncteous matter.
SECALE CORNUTUM. Ergot of rye.
SECRETIONS. Products separated from the blood, by a vital process, for the performance of various subordinate actions in the living system, as the gastric juice, bile, fluid of the pancreas, &c.
SEQUELA. Morbid affections which follow others.
SERUM. A yellowish liquid—a constituent part of the blood.
SIGMOID. A flexure resembling the Greek sigma Σ.
SINAPISM. A mustard poultice.
SPORADIC. A general term for diseases, arising from incidental causes, as cold, heat, &c.
STETHOSCOPE. A wooden instrument used to explore the chest, whereby the ear is assisted in examining the morbid sounds of that part.
STHENIC. It signifies strength.
STRANGURY. Discharge of the urine with pain and by drops.
STRUMA. Scrophula.
SUPPOSITORY. A medicated solid, as of opium, &c. introduced into the rectum.
SYNCHRONOUS. That which occurs in equal times, as the strokes of the pulse.
SYNCOPE. Fainting.
SYSTOLE. The contraction of the heart and arteries.

TÆNIA. The tape-worm.
TARAXACUM. Dandelion.
THORAX. The chest.

TORMINA. Griping.
TOXICOLOGY. An account of poisons.
TRACHEA. The windpipe.
TRACHEOTOMY. The operation of making an opening into the windpipe.
TRAUMATIC. Belonging to or caused by wounds.
TRISMUS. Locked-jaw.
TYMPANITES. Air collected in the belly.

UMBILICUS. The navel.
URETER. The canal which transmits the urine from the kidney into the bladder.
URETHRA. The canal through which the urine passes.
UTERO-GESTATION. Pregnancy.
UTERUS. The womb.

VACCINIA. Inoculated cow-pox.
VAGINA. The female passage or canal, extending from the mouth of the womb to the external orifice.
VARICELLA. Chicken-pox.
VARIOLA. Small-pox.
VARIX or VARICES. Knotty and dark-coloured swellings, arising from morbid dilatation of veins.
VASCULAR SYSTEM. The system of vessels, that is, the heart, arteries, veins and lymphatics.
VEINS. Vessels which convey the blood to the heart.
VENÆSECTION. Blood-letting.
VOMICA. An abscess of the lungs.

THE END.

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